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THE WORKS OF JOSEPH PAYNE.

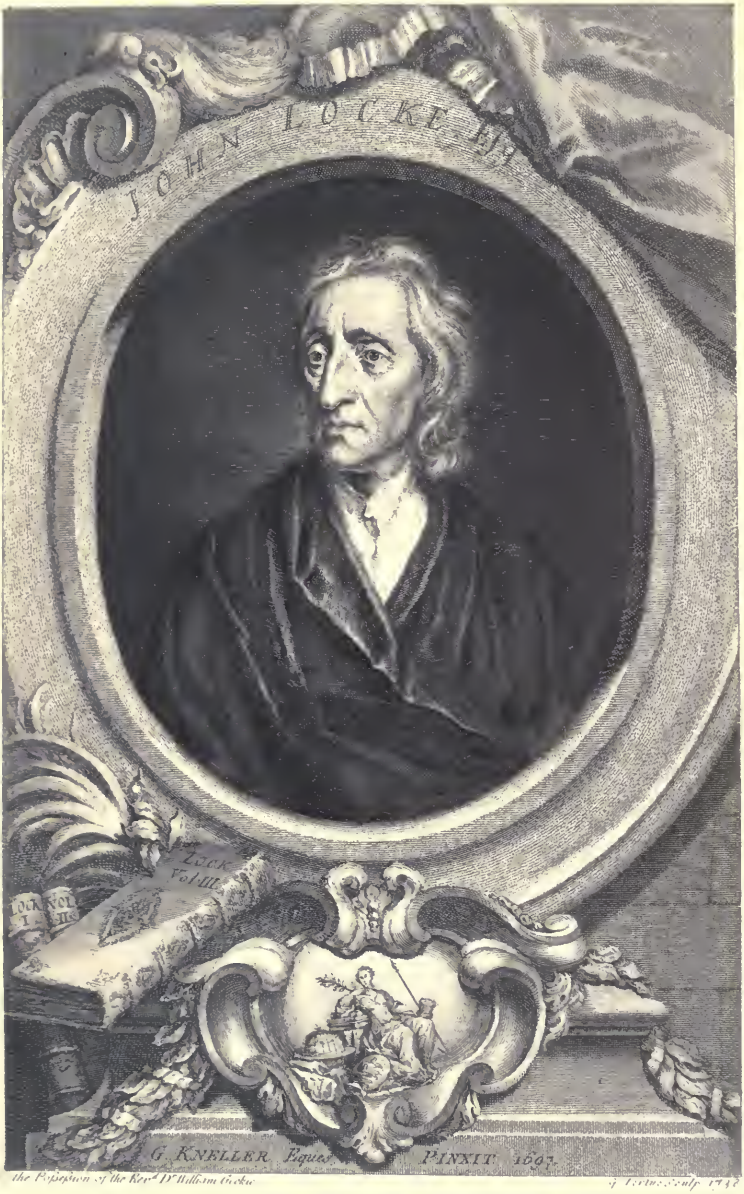
VOLUME II.

LECTURES ON

THE HISTORY OF EDUCATION

WITH

A VISIT TO GERMAN SCHOOLS.



the Possession of the Revd Dr William Cooke

G. Vertue Sculp 1738

Hist.

LECTURES

ON THE

HISTORY OF EDUCATION

WITH

A VISIT TO GERMAN SCHOOLS.

BY THE LATE

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THE FIRST PROFESSOR OF THE SCIENCE AND ART OF EDUCATION IN THE COLLEGE OF PRECEPTORS,
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EDITED BY HIS SON,

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PREFACE.

THE lectures on the History of Education contained in the volume now published include the third part of the course delivered by Mr. Payne as Professor of the Science and Art of Education at the College of Preceptors. The manuscript from which these lectures were given, though altered and partly re-written during successive years, is in parts very fragmentary, and was never prepared by the author in a form suitable for publication. The obvious omissions and breaks of continuity which are certain to be found in the manuscript of a discourse intended for oral delivery, would doubtless have been filled up at the time by extemporaneous additions, and by passages read from the authors spoken of.

Notwithstanding these drawbacks, I have not thought it right to alter the text in any essential points, or to attempt to give it a completeness which could only have been given by some editor as familiar with the subject as the author.

The alterations have been confined to the insertion of words or paragraphs necessary to complete the sense, and of extracts which would probably have formed part of the discourse as actually delivered.

The three lectures on Pestalozzi, Fröbel, and Jacotot stand on a different footing. These lectures were delivered and published by Mr. Payne on different occasions, and as they contain the most matured expression of his views on those educators, it has been thought better to substitute them for the less complete exposition contained in the manuscript. Some further observations on Jacotot, already published, have been added as a supplement to the lecture on that educator; and it should be observed that the account here given of his methods is distinct from that contained in the first volume of the works, which represented the views of an ardent and still youthful disciple. Finally, it has been thought well to reprint, as a contribution to the history of contemporary education, Mr. Payne's "Visit to German Schools," giving an account of the Kindergarten system in Germany. This little work, published after the author's death in 1876, has long been out of print in this country, though I believe it has been republished in America, and is still sometimes enquired for.*

The notes, for which the editor is entirely responsible, have for their chief object to supply references to the sources from which the lectures were derived, and to reproduce some of the materials which served as their foundation. In a few instances additional material has been supplied in order to complete the statements in the text. It is hoped that the presumption of the editor in entering on a field which is not his own, may be excused in consideration of his aim, which has been to render the work, if possible, in some degree more useful to those for whose benefit it was designed by the author.

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* The first volume of Mr. Payne's Lectures on Education, I may say, after reaching a second edition in this country, has achieved considerable popularity in America, where at least one complete edition and one abridged have appeared; and to judge from the statements of their publishers must have had a large sale. My knowledge of these editions is, however, entirely unofficial, and I have not been so fortunate as to see them.

Possibly a certain hereditary predilection for the study of old books may have sometimes led to an over minute discussion of questions of bibliography. But let those whose taste is for such minutiæ, not disdain the few crumbs provided for their repast, and those who care for none of these things can easily pass them by.

With regard to the portraits and other illustrations, my aim has been to make them above all historical. Hence without any ambitious attempt at supplying works of high art, I have been content in most cases with reproducing contemporary likenesses, the very rudeness and quaintness of which has sometimes an interest which would not be found in more uniform and modernized engravings. In going over this ground it has struck me what a splendid field is open to some historian who with adequate knowledge and resources should produce an illustrated History of Education.

In preparing this volume for the press I had frequent occasion to appeal, and never in vain, to the wide knowledge and sympathetic interest of my father's friend and my own, the Rev. R. Hebert Quick, whose loss all who care for the cause of education cannot too deeply regret. But it should be stated that the whole of the lectures were printed and most of the notes written before the appearance of the second edition of his "Educational Reformers." All references to that work therefore are made to the first edition.

I much regret that owing to causes which it would be unprofitable to explain, there has been so long a delay in giving this volume to the world. I trust, however, that it may now serve not only as a memorial of its author, but to assist the cause which he had most at heart.

EDITOR.

78, WIMPOLE STREET, LONDON,
January 1*st*, 1892.

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THE
HISTORY OF EDUCATION.

LECTURE I.

In the two courses of lectures which have preceded this I have endeavoured to lay down the principles on which the science of education is founded, and to illustrate the corresponding art.[1] I have now to show by reference to history in what way the conception of education has been practically dealt with in different ages of the world by different nations and by different individuals. In entering on this vast field of enquiry I am almost dismayed by the prospect before me, especially if we consider, as I am disposed to do, education in its largest sense, as only another word for civilization. To convert the raw, crude material of human nature—a nature which when entirely uncultivated concerns itself, in the case of savage man, almost altogether with the satisfaction of mere animal wants and desires—which exists only for itself and for the present moment—into the higher nature of a being who looks behind him to gather the fruits of experience, and before him to utilise them for the benefit of those who are to succeed him, who explores the remote and distant as well as the near—in a word, who reflects and thinks with a view to the general good of the commonwealth; this is the problem of civilization, and in a large sense of the term it is also that of education.

To treat of education, however, thus viewed within the compass of a few lectures would be obviously impossible; I propose, therefore, to confine myself entirely to that education which is connected with the *art* employed by the human educator; the system of means which he employs consciously and continuously with the view of developing the innate powers of his pupils and obtaining the utmost possible advantage from their exercise, and this with the ulterior view of realising a theoretical end—political or religious, or both—contemplated by the master spirits who embody and represent the public opinion of the nation or state. Leaving, then, entirely out of sight henceforward the unconscious education of circumstances, I shall restrict myself to education viewed as an art, employed by a human educator who has a definite end in view, and who adopts special means for attaining it. This is the ordinary meaning of the term, and the object I have before me is first to give a sketch of this history of education as carried on in past ages of the nations whose general civilization is acknowledged; and secondly, when we arrive at more recent times, to present in detail the theories and methods of those men whose opinion and practice have so largely influenced education as it is. I need hardly enlarge upon the importance of knowledge of the History of Education to all educators. To know what others have thought and done in the great field in which they are themselves working is surely incumbent upon all who have any ambition to rise above the grade of mere mechanics and empirics. It is of the essence of empiricism to be satisfied with what we ourselves do—to care nothing for the experience of those who have thought out the problems of our art and reduced them to practice. It is of the essence of arrogance and self-conceit to assume that we in our own limited experience, even if we have worked conscientiously at these problems, have solved them in the best possible way. Our own best solution may still be bad. But even if we are not personally concerned in the history of education, if we are not educators, it might be a matter of interest to every one who cares for the progress of society, to know what education, so much talked about, so little understood, really is, to know something of the views which have governed the action of rulers and lawgivers with regard to it—of the various theories and methods devised by thoughtful practical men in different ages of the world. This knowledge were it more generally diffused would lead, as Dr. Karl Schmidt says, to wake up society from its education-slumber. And if he says this of Germany, what ought we to say of England?

The materials for these lectures on the History of Education I have mainly derived as well from the original authorities as especially from the masterly work of Dr. Karl Schmidt, "Geschichte der Erziehung" (History of Education); from Karl Von Raumer's "Geschichte der Pädagogie" (History of the Pedagogic Art), which comprehends the history from the middle ages downwards; from Dr. Riecke's "Erziehungslehre"

(Doctrine of Education); from Mr. Quick's "Essays on Educational Reformers;" and from Mr. Furnivall's account of "English Education in Early Times."[2] The subject divides itself chronologically into two parts—education before and after the introduction of Christianity, and ethnographically into at least seven, viz. Chinese, Indian, Egyptian, Persian, Jewish ancient and modern, and European education, including that of Greece and Rome.

Confining our attention, in the first instance, to the education of the ante-Christian period, we notice that it was in most cases regarded as a matter of state concern. The education was government education. It was not left to individual parents as it has been in more modern times to decide whether their children should be educated or not, the only instances perhaps in which this rule did not strictly apply being that of the Athenians and the Romans, among whom a greater degree of latitude prevailed. Another general point that may be noticed is this—that the government education was designed emphatically for the *higher classes of society*, for those whom we should call gentlemen, not for the mass of the people. The idea of popular education in our sense of the term is a modern idea. It finds no place, I believe, in ancient civilization—unless China—where education of a certain kind is, and probably was anciently, almost universally diffused—be an exception. The main design, in fact, of the rulers of the several nations was to educate children to take their place in the ruling class. The arrangements made for the education of the favoured few in each case were governed by the leading idea which formed what we may call the idiosyncrasy of the state. Thus, in China, the family-ideal; in India, the caste-ideal; in Egypt, the priest-ideal; in Persia, the soldier-ideal; in Judæa, the theocratic ideal; determined the character of the education, while in Greece and Rome the purely literary ideal was combined with the military. These several ideals, constituting the theoretic aim of the ruling powers, were firmly embodied in the respective systems of education. I cannot, of course, attempt even to show the causes, lying deep in the historical development of these several nations, which led up to these theories; I must for want of time assume them, and proceed to give some account, necessarily brief, of the manner in which they were carried out.

I commence with the CHINESE system. China has been from time immemorial a cultivated nation—a nation in which a rigid stereotyped system of education has almost universally prevailed. It is emphatically and beyond all others the country of competitive examinations. All the officers of the state are men who have achieved their positions by long-continued never-ending examinations, gradually increasing in difficulty until the highest, that by which the associateship or membership of the Imperial Academy is gained. There are men in China of seventy and eighty years of age who, having reached the lower grades, are still aiming at the higher,—enduring examinations, in fact, all through their lives—a spectacle unequalled in the whole world, outside of China.

The arrangements for these examinations are so curious and apparently so ancient that it may be worth while, though somewhat anticipating the historical order of things, to give some account of them. I shall leave unnoticed the numerous preliminary examinations which lead up to that which I propose to describe, viz., the great examination for what we might call the degree of Master of Arts. Imagine yourselves, then, to be in the capital city of the province where the triennial examination is about to be held. An extraordinary excitement prevails among the crowded population. A great event is at hand. As you pass along you observe numbers of men wearing a peculiar button in their caps. This is the distinction of those already graduates, bachelors of arts, and who are about to compete for the mastership. When they are all assembled they amount to seven or eight thousand men. You follow the crowd and arrive at a vast walled encampment. The walls are high and pierced here and there by doors. You enter and find yourselves in the midst of long rows of little rooms or cells, facing one another and opening into alleys or passages three or four feet wide. The sides of those cells which are next the alleys are open from top to bottom. They have no other doors or windows. Each of these cells (about three feet square) is destined to receive one candidate. These rows of cells are covered with a tiled lean-to roof, the front of which is about six feet from the ground. The furniture consists of a board let into the wall and forming a table to read at, and another board to sleep on, or a stool. You must take your place at one of the doors of the encampment and observe the entrance of the candidate. Each has a roll of ruled official paper in his hand, marked with his name and number. Every one undergoes a strict scrutiny in order to ascertain whether he has any paper, printed or written, concealed about his person which might help him in his task. He carries with him or has his own servants to carry the food, cooking apparatus, candles, bedding, &c., which will supply his wants for the three or four days and nights of the first session of the examination; for, except in the case of sudden illness, once in his cell there he must remain. When the last candidate has entered the enclosure the doors are shut, and remain shut for the term of the examination. When the competitors have all found their allotted cells and settled in, the themes for the essays and the poems they have to write are distributed, and they know for the first time the subject of the competition. They then begin their work, which, when completed, is handed over to different sets of examiners. During the examination numerous officers (as many as three or four thousand being employed) pace up and down the alleys day and night and surround the encampment to shut off all communication between the candidates with each other or with the outside. Those whose essays and poems are finished are allowed to come out of their cells in batches. On the opening of the outside doors they make their exit with firing of artillery and beating of drums, as a salute of honour. The essays and poems which are judged worthy of distinction are copied out for the Emperor's inspection, and the names of the writers printed on a placard which is set up for public view, and during the reading out of the names the governor of the province bows three times amid salutes of artillery. Thus is the great distinctive grade of *Ki Nyin* gained, and the holder made eligible thereby for a high office under government. The higher grade of *Han Lin* or Doctor still lies before the aspirant for honour, and the successful candidate in this is marked out for an official appointment, at some convenient opportunity. The examination for the fourth grade, that of membership of the Imperial Academy, is held in the Imperial Palace, in the presence of the highest personages of the empire, and the successful competitor becomes *ipso facto* a man of distinction who is sure of an honourable official post. The examination is altogether literary, and success in it depends essentially on a good memory. The candidate has as a part of it to reproduce exactly, without the alteration or omission of a single word, long passages of the second book of Confucius together with certain state documents. In his essays, which are founded on maxims of Confucius, he must carefully avoid all originality. Not a single thought, not even an expression or epithet is admissible for which authority cannot be found in classical writings. If he ventures to think for himself he will infallibly be plucked, no deviation whatever from the established groove being permitted. In this feature of the examination we see reflected the whole character of the Chinese intellect as acted on by its literary education. The result is that Chinese civilization stands continually at a low dead level. Science in the proper sense of the term is almost unknown. Four thousand years ago a certain amount of astronomical observation was in vogue, but astronomy has made no advance, and in modern times European astronomers have been called in to adjust the Chinese calendar. Their moral education is founded on the maxims and precepts of Confucius and Mencius, many of which are most wise and valuable. They enjoin respect for age, profound reverence for parents, religious homage for the Emperor, who is the earthly representative of the Divinity himself, and the great father of all the families of the nation. Disobedience to these precepts regarding parents or the Emperor is a capital crime. Hence obedience is the cardinal virtue of the Chinese, an obedience which subjugates both body and mind, represses all independent action and all original thought, and keeps the nation in a state of perpetual childhood.

Women in China are generally of no account, except as servants to the men; no attempt is made to cultivate their minds. Girls are taught nothing but the household occupations in which they are to spend their lives.

These, then, are the leading characteristics of the Chinese system of education, a system the theory of which contemplates the whole nation as a vast family governed by a despotic father, whose word is law, who has absolute power over the lives of all his children, but who at the same time by holding out brilliant prizes fosters their ambition and invites them to render themselves worthy of taking a subordinate part under him in the government of the nation.

It is worthy of notice that in China, as in England, there is unrestricted liberty of teaching. Any one may profess himself a teacher or a "coach" to all examinations. The government which prescribes the examinations takes no account of the manner in which the candidate is prepared for them. There are consequently no normal colleges, and so there is no training of the teacher for his work. In fact the teacher is nothing more than a crammer, and in no sense an educator. If, on the one hand, he encourages development to a small extent, yet, on the other hand, it is his main business to watch and stifle it and never to allow it to advance beyond a certain low point. The essence of the system is payment for results, the payment consisting in the distribution of government appointments.

In ancient India, to which we next turn, the ideal of caste governed society and dictated the theoretic aim of education. There were four strictly separated classes or castes—the Brahmin, warrior, handicraft or merchant, and subject or slave castes. In one of these each individual was born and remained during life—no arrangement for transference from one to the other being possible. The Brahmin or Sacred caste was the only one that received extended education. They alone enjoyed the privilege of reading, interpreting, or teaching the sacred writings called the Vedas, the supposed depositories of all wisdom. The warrior and handicraft castes were permitted to read but not to teach these writings—a permission absolutely denied to the fourth caste as well as to the women. Education, then, was a religious monopoly managed exclusively for the Brahmins. All the arrangements had in view the maintenance of this state of things. The Brahmin teachers were entitled to the profoundest respect or rather reverence greater even than that due to parents. " No crime committed by them could be punished with death. Their decisions on questions submitted to them had the force of law though they had no official position as magistrates." They were the depositorics of all the real knowledge of the nation—and Indian knowledge in distinction from the Chinese, embraced science as well as literature. The main subject, however, of their teaching was the sacred writings called the Vedas. Every lesson in the Vedas was accompanied by religious observances. Before beginning to read, the pupil had to wash himself, keeping his face towards the north, put on a clean garment, give the scriptural greeting to his teacher, which consisted in embracing his feet, and then read with his hands folded together. The teacher had also to wash himself before the lesson, and both at the beginning and at the end of it to say to himself the mystical syllable *Om*—denoting the trinity of Brahma, Vishnu, and Sheva. If this sacred *Om* was omitted, the instruction would be unavailing. The schoolroom used for imparting instruction was generally the shade of a wide-spreading tree. Here the teacher sat rod in hand while his pupils squatted on the ground around him. The rod, however, was rarely used. The Vedas enjoined gentle discipline, kind, soft, encouraging words, or if more was needed the rod of the mouth, sharp reproofs and threats, and, except in extreme cases, the rod of thongs was not to be employed.

In the elementary schools reading, writing, a little arithmetic, and a little music were taught; writing and reading were, as in some modern German schools, taught together. The children wrote first on sand, a plan adopted subsequently by Dr. Bell, the founder of the Madras system, then on palm leaves with a style, lastly on plane tree leaves with a kind of ink.

The range of education in India was far more comprehensive than in China. Chinese education prepared the scholars for practical life, the Indian for the ideal—the former for earth and advancement in the world, the latter for heaven and for advancement out of the world—the former repressed original thought and research, the latter encouraged both. With the exception, indeed, of the Greeks, the Indians were the most educated people, and by far the most philosophical and scientific thinkers, of the ancient world. In the Indian system of education we see, then, the unquestionable stamp of the caste ideal. The Brahmins as the only teachers kept the education in their own hands—their children alone were educated up to the highest standard, while the people in our sense of the term received no education at all. As in China, so in ancient India, no real instruction was furnished to women, and it was even a reproach to women to be able to read and write. To marry while yet children, and ever after to be slaves to the men, was almost their sole function.

The caste system also prevailed in ancient Egypt, and by its spirit determined the character and extent of the education carried on in that country. Yet caste was not, as in India, absolutely indelible. It was possible though very rare for a man to rise to a higher caste than that in which he was born. This applied, however, only to the sub-division of the third caste—that of craftsmen and agriculturists. The two highest castes, those of priests and warriors, alone were educated, and of these the priests kept the keys of knowledge in their own hands. They were the philosophers, historians, physicians, astronomers, and astrologers. The priest caste was itself divided into two classes—the exoteric and the esoteric, the latter of which alone were admitted to the profounder mysteries of knowledge, and understood the deep meaning of the hieroglyphics. The king himself, who belonged to the warrior caste, was virtually under the direction of the priest caste. It was this caste which managed the offices both of the government and of religion; and the maintenance of their supremacy was the theoretic aim of Egyptian education.

The intellectual status of ancient Egypt, though high, was limited as compared with that of India, yet in consequence of its geographical position, has had through Greece and Judæa a larger influence upon modern civilisation. Children learnt to write by practising on the papyrus leaf with black or red ink, and to cipher by exercising their hands and minds on tangible objects—apples, beads, &c., a sort of anticipation of Pestalozzi's and Fröbel's methods. The people so called got a smattering of instruction in reading and writing from their fathers, but no provision was made for this by the ruling powers. Superior instruction, that conducted by the priests, was therefore entirely out of their reach. The mummy, says Dr. Karl Schmidt, was the characteristic symbol and ideal of the Egyptian nation. There was no diffusion, no development, nothing but unbroken persistency and immobility. Its national monument is the tomb, the pyramids. Its national life was surrounded by emblems of the past, and of the motionless, and was absolutely under the control of the priests, who kept in their own hands all the culture of the nation, and communicated it only as they pleased.

The position of women was higher in Egypt than in China and India. They often, as children, received a little elementary instruction at home from their fathers and mothers, but no mention of schools, much less high schools, for girls is on record. Yet we know that there were female sovereigns, and we have even some hints of female priests employed in the temples. Those who would know something of the domestic condition and employment of Egyptian women should pay a visit expressly to the British Museum.

Among the ancient PERSIANS, the theoretic aim of education—the culture-ideal—was to form soldiers. Individual life was altogether subordinated to the national life—the life of the state. The family was an unconsidered unit, the government an all-comprehending circle. The Persian was not to live for himself but for the state; for this he was born, for this he must live and die. The curriculum of education was simple,—riding, shooting with the bow, hurling the javelin, and telling the truth, thus resembling in some respects the actual, though not the ostensible, education of our own modern Eton.

The Greek conception of its spirit and development may be seen in Xenophon's interesting romance—the Cyropædia. Up to the age of seven, the Persian boy was brought up by his mother, who, however, was entirely uneducated herself. She was not to attempt to expound the principles of right or wrong, but when the child committed a fault, as, say, to lie, "Don't do that again." Whether this negative method is always efficacious we are not informed. At seven years old the child became the object of state care and direction—the parents' charge being superseded by that of government overseers and teachers, whose age was to be over fifty. When the boy was fifteen years old, amid solemn ceremonies, he was invested with the Sacred Girdle, which he was ever after to wear night and day, as a security against the malign influences of the powers of evil. From this moment the family tie of parents and children were entirely unloosed—the boy's own individuality was merged in the state interest.

One feature of moral training may be especially noticed. Quarrels among the boys were decided by a jury chosen from themselves, and the young judge of the court in giving the decision of the jury, and directing the punishment of the wrong-doer, was to lay down at the same time, in detail, the principles of right in which the decision was founded.* The boys were brought up to endure hardness of every kind. Simple food, scanty clothing, absolute obedience to authority—to order themselves lowly and reverently to all their betters, to bear with indifference cold, heat, hunger, and fatigue; these were the means used to prepare the boy to be not only a brave warrior in the fight against national foes, but also in the conflict always going on between good and evil, between Ormuzd and Ahriman. Female education was uncared for. Women were not wanted for the public service, their only business was to live in the shade.

We next pass on to the history of Jewish education, of which the theoretic aim was the realization of the *theocratic ideal.* God was the ruling power, His law the controlling force, His service the object, and at the same time the means of education. The child was the immediate gift of God, and was to be brought up for Him. The fear of God was the beginning—the leading principle of wisdom. The father on earth in a certain sense represented the Father in heaven, and was therefore to be continually obeyed and honoured. The father was the educator of the child, and taught him to read, sing, and dance, the use of weapons, and generally his own occupation, whatever that was. Sometimes children were placed under a priest or Levite for further instruction. The religious ceremonies, the special sacred festivals, were to be frequented by the children and their signification and history explained. The only higher instruction was given in the schools of the prophets, which were attended by the sons of prophets and priests. The text and the interpretation of the Law, music, poetry, training in moral virtues, were the principal matters of instruction there. The memory was more exercised than the understanding. Female education, as in all Eastern nations, was almost entirely neglected. What was learnt by girls was taught by the mother, and generally consisted of initiation into women's employments, spinning, &c., at home. They also learnt something of singing and dancing, and cymbal playing. No intellectual cultivation was thought of for them; the daughters were often regularly sold rather than given in marriage.

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* A plan something like this has long been in use at Bruce Castle School, and seems to answer remarkably well.

The native ability of the Jewish people appears to have been, as it is now, considerable, but its development was generally low. They learned most of what they knew of the arts and sciences from the Egyptians or Phœnicians, and they appear to have displayed little originality in the application of principles. Solomon stands almost alone in their ancient history as a representation of high education.

LECTURE II.

ON GREEK EDUCATION.

We now pass on to the Greeks, among whom we find the most splendid types of high intellectual culture that the world has yet known. The fact seems mainly due to the freedom of Grecian, especially of Athenian thought. Among the Eastern nations there was always some controlling power, that of the caste, or of the priest, or of the central government, which kept down intellectual development and treated the people as mere children. Among the Greeks, on the other hand, with the exception of Sparta, the idea of individuality prevailed. Every free man (others were held of no account) claimed and was allowed the power of thinking for himself, of pursuing without control his own self-education. This remark, however, particularly holds good, as I have just said, of the Athenians as distinct from the Spartans, of the Ionian rather than of the Dorian race. The main distinction between the two, the Spartan and the Athenian educational theories, was this, that the Spartan required on the part of the citizen the sacrifice of his individuality for the sake of the commonwealth; while the Athenian by promoting individuality aimed at the same object. At Sparta the aim was to produce a certain type of man—the military—and all the arrangements of private life were subordinated to this end. The Spartan was not to carry out his own will but the will of the commonwealth; he had, in fact, no will of his own. The free-born gentleman, as distinguished from the slave population who did all the handicraft work, was to be pre-eminently a soldier, and nothing was considered important in his education which did not conduce to this object. Music and poetry, as far as they were cultivated at all, were cultivated not for their own sakes, not as matters of taste, but simply as means for kindling and fostering the martial spirit. Hence education at Sparta was a regulated system, all the arrangements of which were a matter of state concern; and the clearly defined object of which was to subordinate the individual will to the supposed requirements of the commonwealth. The Athenian, on the other hand, was far less interfered with by the ruling powers, which confined themselves for the most part to furnishing opportunities for his activities and stimulating them to exertion, and refrained from laying down absolute rules for their exertion. The theoretical aim of Athenian education was above all the development of the taste for the beautiful and the good; and the formation of the soldier, which was the sole object of Spartan education, was a collateral rather than the principal object of the Athenian education. It was conceived, in fact, that the various exercises and the strict discipline which were involved in the training of the body in order to secure its perfect manliness and beauty would of necessity develop those qualities, strength, self-control, fortitude, fearlessness, which constituted the essential characteristics of the warrior as such, so that the pursuit of the higher aim would of itself secure the lower. Similarly in relation to intellectual culture, it was conceived that the development of the mind's forces, its power of combination and of investigation into the causes of things, of imagination—in a word, of thinking, would be the surest means of forming the accomplished soldier. The Athenian army, therefore, was for the most part a body of intelligent, educated men, and this fact had perhaps more to do than is generally thought with their success in the field. A parallel instance has been lately seen in the war between Germany and France, which was essentially a contest between knowledge and ignorance, between education and non-education. Comparing, then, the respective theoretical aims of these two systems we cannot fail to see how vastly the one transcends the other. The one aimed at the cultivation of the whole human being, the other only at the cultivation of a particular style of man. While making this comparison we are struck with the fact that at Sparta thought was regulated by authority—contracted and cramped by rules—while at Athens it was almost altogether free, left to expand and develop itself to the utmost limits of its nature. This after all constitutes the essential difference between the two cases. I cannot, however, enlarge upon these general views of the subject before us. I will close then by one remark; it is this: When we consider the influence which Athenian culture has exercised upon the history of civilization, we cannot but be struck with the thought that it is really the highest minds that educate the world. Thinking begets thinking, and hence even when these great intellects seem chiefly engaged in pursuing the ideal, in indulging merely in speculation, they are in reality only setting other minds at work preparing for the practical. What was begotten among the clouds descends to earth and takes a tangible shape. The upshot of this remark is, that while the Spartan education scarcely produced a single thinker, the Athenian education, as exhibited in its highest results, has been the means directly or indirectly of educating both in thought and action the whole civilized world. But I must enter on some of the particulars of these two systems, and in doing so I beg to refer to those who would know more of the details—respecting Spartan education especially—than I can find time for, to the clear and well considered accounts of them contained in the first of Dr. Oppler's valuable lectures on education, delivered at the College of Preceptors.[3]

We begin with SPARTA. As soon as the Spartan child was born it was minutely examined by a committee of elders appointed for the purpose. If any malformation or any special weakness was discovered which seemed likely to prevent the boy from being made into a good soldier, or the girl into a healthy mother, he or she was ruthlessly condemned to exposure, and of course to death, on one of the precipices of Mount Taygetus. This *unnatural* line of selection secured or was intended to secure healthy children for the state. If the child passed muster it was handed over to the mother who brought it up at home until it was seven years of age. She either suckled it herself or in the more respectable families employed a healthy wet-nurse. No swaddling clothes or bandages were allowed to restrain the freedom of its limbs. It learned to walk by its own efforts, when it was able, not by being "set upon its legs," so that bandy legs and deformed joints were, we may suppose, very rare in Sparta. It was accustomed to be put to bed alone, sometimes in the dark, sometimes with a bright light placed directly before its eyes, and under no pretence was the luxury of screaming permitted, though we are not informed how this useful law was enforced. Screaming and squalling babies were, for the unspeakable comfort of the mothers, somehow effectually put down in Sparta. When the boy was seven years old, he was "mother's boy" no longer. He was given in charge to a special magistrate appointed by the state named *παιδονόμος* (boy trainer), whose business it was to teach the child manners and to watch over the preliminary gymnastics which suited his age and strength. This overseer was always attended by several officers ominously named whip-bearers —who, we are told, did not bear their whips in vain. Whenever the little urchin made the slightest trip either in his manners or his exercises these officers, at a signal from the overseer, laid on handsomely, and if he dared to call out, they gave him more by way of *encouragement*, in the true sense of that word. The boy went about scantily clothed and barefooted and was obliged to take a dip every day in the Eurotas. He now accompanied his father to the public table, where he sat on a little stool, never speaking except when he was spoken to, seen and not heard. The food he got was coarse and badly cooked; part of it consisted of black broth. There was very little of it for him, and he was never allowed to ask for more. He was purposely kept on short commons in order to force him to get more if he wanted it either by scrambling up Mount Taygetus and hunting or knocking down some animal, or else by deliberately stealing food from his neighbours. If he managed his theft adroitly, so as not to be found out, he was pronounced to be a good boy. If he was caught in the act the whip-bearers were called in to punish him, not for the theft, but for his bungling attempt. To keep his hands from picking and stealing, therefore, found no part of a Spartan boy's duty to his neighbour. The hunt among the hills or the private purloining were held to be very good discipline for him. They accustomed him to bear fatigue, cold and heat, and to practice his audacity, self-control, cunning, and dexterity. Along with other boys of the same age he had to undergo a public flogging in the temple of Artemis—a strange and cruel rite, but merciful in comparison with the human sacrifice for which it is said to have been substituted. The punishment was inflicted, we are told, with unsparing severity, until the backs of the little fellows were bathed in blood. But it was a point of Spartan honour never to utter a cry under the infliction, and instances are mentioned of boys who fell down dead without a word of distress.[4] Such was Spartan discipline.

Amidst various preliminary exercises designed to strengthen his body, and make his limbs apt and supple, together with elementary instruction in reading and writing and committing to memory passages from the Iliad and fables from Æsop, the boy reached his 12th year. He now began regularly to attend the gymnasium and to take his part in the exercises practised there. These consisted especially of five, and were therefore called the Pentathlon (πένταθλον), viz.: running, leaping, wrestling, disk or quoit-throwing, and hurling the javelin. To these was subsequently added the rougher and more dangerous Pancratium (παγκράτιον), a sort of combination of wrestling and boxing, originally forbidden, it is said, by Lycurgus. The gymnasium was also the playground, where games with balls, and other sports known also to modern youth, could be played. Very little of what we call school instruction was attempted among the Spartans. It was not positively forbidden, but it was not demanded of a free citizen. The child learnt reading enough to enable him to commit to memory, as I have said, passages from Homer and Æsop as well as songs in honour of the gods or of renowned heroes. Beyond this literary education does not appear to have advanced. The graces of style and criticism which were so much cultivated among the Athenians, the Spartans cared nothing for. The art of rhetoric they emphatically designated the art of lying, and despised it altogether. On the other hand, they prized highly, and cultivated, apt, concise, and expressive speech, and prided themselves on their witty sayings. Laconic brevity, as we all know, has become proverbial—"Mother," said a Spartan boy, "my sword is too short." "Add a step to it then," was the rejoinder. "With this or upon it," said the Spartan mother, as she gave her son his shield when he went forth to the battle. "We will come and lay waste your country, destroy your towns," &c., a long threatening message was once sent to the Spartans. The only reply was "If." There is evidently very little rhetoric but very much pith and meaning in such utterances as these. Music was greatly cultivated among the Spartans up to a certain point. It was not known by them as a science, or even strictly speaking as an art, but was recognised as a powerful means of acting on the feelings, and used accordingly. Warlike strains, therefore, such as roused the martial spirit to action, were sung or played very commonly; others were unknown. Flute players, we are told, led the army to the battle-field. Women were held in far higher estimation in Sparta than at Athens. They were reckoned as a real part of the public economy. They appeared much in public. They attended not only as spectators but as actors in the public games. They took part in the processions. Girls had lessons in music with the boys. They were allowed to express freely in public their praise or censure of the way in which the boys performed their exercises. In Athens no woman had an opinion of her own about anything, or if she had, it was kept to herself, and never came out into the common stock.

These, then, were the main features of Spartan education, a system limited in its scope, but powerfully influential in the public life and public spirit. It comprehended whatever was necessary to form the warrior and excluded nearly everything else. It fostered the sterner virtues and scarcely took account of any others. Its whole tendency was to merge private and individual interests in those of the state.

We have next to consider ATHENIAN education, which took a far wider range and was pervaded by a different spirit. The interests of the commonwealth were not less dear to the Athenians than to the Spartans, but it was conceived by the former that these interests would be better secured by promoting and developing, rather than by restraining and cramping, individuality of character and action. Hence, instead of taking education into their own hands and prescribing by law the subjects of instruction and the methods by which they were to be taught, as was the case at Sparta, the Athenian rulers mostly contented themselves with offering opportunities for education and leaving the citizen fathers to avail themselves of them for their children as they pleased. It was rather public opinion than positive enactment which led the Athenians to set so high a value on education and so earnestly to seek to secure it for their children. Exact information at this point, however, is, perhaps, wanting, but at all events we hear nothing of compulsion. It was apparently a point of honour that the Athenian free-born gentleman should be well instructed and disciplined in all those arts of proficiency in which constituted a training in the good and beautiful. If the state interfered at all it was on behalf of the lower grades of instruction, in gymnastics and music; public opinion did the rest. We see with some surprise, which, perhaps, more exact knowledge would diminish, a system of education at work among the Athenians, apparently not supported by endowments nor quickened by the necessity of learning in order to get a living, for the most part aiming at an ideal—the good and the beautiful, and yet so complete in many respects, so far reaching in its ambition, so grand in its results, that the world has not hitherto seen its parallel.

But I must now describe some of the special characteristics of the system. The first seven years of the child's life were spent at home with the mother, who was assisted in suckling it by a wet-nurse, often a Spartan, and in taking care of it by some staid, respectable old woman, who superintended its games and amusements, and took walks with it in the open air. The baby was well supplied with rattles, balls, and dolls, and amused as soon as it was capable of such amusements with nursery tales and songs. Amulets were hung about its neck to preserve it against the evil influence of the moon, and of ghosts and hobgoblins. When the boy grew older, hoops and tops were furnished and given him, and he got much fun out of playing at ducks and drakes and blind man's buff, and also out of the cock-chafer's buzzing, when tied to a string which was put into his hand. The little girl who shared these domestic amusements with her brother was quite early invested with stays to make her waist slim and elegant, and a few years later in life her hair and her eyebrows were coloured to the prevailing tint of fashion. And now the little boy was handed over from the charge of the old crone who had hitherto watched over him, to that of the *Pædagogus* (παιδαγωγός), the *boy-leader*, whose business it was to accompany him to the school of the *paidotribe* or gymnastic master, and to fetch him when the lesson was over. As the pedagogue was at first only a slave, though selected for his general intelligence and good morals and manners, he was not of course a person of much consideration. In later times among the Romans, who borrowed so many customs from the Greeks, the παιδαγωγός, even though in social position only a slave, often qualified himself to give elementary instruction to his youthful charge, and hence παιδαγωγικὴ τέχνη came to mean the art of training or teaching generally, what the Germans call *Pädagogik.* The Athenian pedagogue was not accompanied by whipbearers as the παιδόνομος was in Sparta, and it may be remarked, by the way, that though corporal punishment was in use at Athens, it was neither very frequently nor very severely administered. The feelings of honour, the stimulus of shame, proved a more powerful incentive than an appeal to the bodily senses. The ordinary curriculum of Athenian instruction consisted of gymnastics (Γυμναστική), music (Μουσική), letters (Γράμματα), to which was added in the theoretical scheme of Aristotle drawing or painting. Some authorities, however, comprehend the entire curriculum under the two heads of gymnastics and music, extending the meaning of the latter term so as to embrace the literary course implied by the term letters. Of the studies or exercises that which commenced earliest and was most persistently pursued was gymnastics. While other pursuits occupied the Athenians strenuously for a time, gymnastics of various kinds were carried on more or less through life. The theory on this point seemed to be that a sound condition of the body was the necessary basis of an efficient development of all the active powers of the human being. He alone whose body was strong and healthy was duly prepared for the truest and highest display of intellectual and moral energy, for representing in his own person the beautiful and the good. The *mens sana* could only exist *in corpore sano.** [5]

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* This great truth is by no one more strikingly enforced than by Rousseau, who insists that physical education lies at the basis of both intellecual and moral education, and who pithily says, "The weaker the body is the more it commands, and the stronger it is the better it obeys;" and adds as a precept for

As is often the case with other good theories, this of the Athenians was doubtless ridden to death in practice. Still its general soundness must be admitted, and in the ages to come the children even of the poor in our elementary schools may perhaps be powerfully helped over the tremendous task of learning to read, write, and cipher—badly (as they do at present), by regular graduated gymnastic exercises, whose apparent object is simply to improve their bodily health and personal appearance,—who can tell?

The *Palæstræ* seem to have been introductory to the gymnasium, though the distinction between them is a matter of learned controversy. The exercises in both were for the most part the same in general character, but were simple in the former. The officers in these establishments were the *paidotribes*, or superintendents; the *sophronists*, who watched over the manners and morals; and the *alypts* who oiled and dusted the naked bodies of the young gymnasts, and took a sort of medical charge of their health, prescribing in some cases their diet, and preventing immoderate and dangerous exertions. Into the particulars of the various exercises I cannot enter. They were for the most part the same as those of the Spartans, to which I have already referred. The strictly musical course consisted of singing and playing on the lyra and cithara, the difference between which is not very exactly made out. A visit to the case of ancient musical instruments at the South Kensington Museum will give, perhaps, a better notion of the distinction than any verbal description. Singing was taught by ear at first, afterwards instruction was given in principles. A great number of songs were learnt by heart, and at a part of the musical course attention was drawn to the music of speech, and the laws of rhythmical composition and to elocutional recitation with a view to cultivate the taste for melody and measure. The literary course (comprehended, as I have said, by some under the Greek term Μουσική or music) had in view the attainment of a complete scientific knowledge of their own language. The Athenians neither learned nor cared for any other.*

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the educator, "Make your pupil robust and healthy in order to make him reasonable and wise."

* There are, as we know, some among ourselves who insist that we cannot learn our own language thoroughly without learning another to compare it with. The Athenian experience, as we see, is against this notion, for it is certain that the Athenians knew no language but their own. The truth in this case, as in many others, perhaps, lies between the two extreme points. I am myself of opinion that, to say nothing of merely disciplinary benefits, a boy or a girl who has been well taught Latin, for instance, has many advantages for the

The children learned to read by the old method, first by conning over the letters of the alphabet, then their combinations into syllables. Soon after their attention was directed to the inflections, to the quantity of syllables, accents, intonation, the rising and falling of the voice, and to expression in delivery. Then passages of Homer, Hesiod, the fables of Æsop, and the laws of Solon, &c., were given them to learn by heart. These were frequently repeated and commented on, and were considered as serving for moral as well as intellectual instruction. Homer especially, as they said, contained all wisdom. This was no doubt a very valuable feature of the Athenian system. I am of opinion with Mr. Ruskin that every one who thoroughly knows, *knows* by mind as well as by heart, twenty pages of a good author, mastering the matter so as to know the whole in all its parts, sentence by sentence, phrase by phrase, word by word, syllable by syllable, and letter even by letter, having it so pegged into the memory and into the mind that almost everything he reads thereafter may be hinged on these pegs, not only in the sense of Jacotot, knows the language, but is perforce an *educated*, though he be not of course a fully *instructed*, man. In some such fashion as I have described all the Athenian boys seem to have learnt their Homer, which was almost literally their only book.*

Writing they learnt in the earliest times by scratching on a table covered with wax, with a metal style, imitations of the copies set before them; later on they wrote with reeds dipped in ink, that is, a mixture (not a chemical solution) of soot or some unknown pigment, upon parchment or some kind of paper.

exact study of English, which those unacquainted with Latin have not. In reading our classical authors especially, a knowledge of Latin often throws a new and unexpected light on the precise meaning of an English word. When Jeremy Taylor speaks of "resenting God's mercies," and Milton, of Satan being raised by *merit* to his bad eminence, we easily see that a knowledge of the meaning of the Latin words *resentire* and *meritum* helps us at once to appreciate the force of these expressions, though I do not of course affirm that this appreciation is beyond the reach of a mere English scholar. The essential blunder of our system is that we have not until recently made the exact study of our mother tongue an essential part of our curriculum.

* When I come to lay before you some of the features of Ascham's and Jacotot's methods, I shall have an opportunity for dwelling on the great advantages both for discipline and instruction, *i.e.*, for culture generally, of confining the attention to a small portion of literary matter as a field to be thoroughly worked by the mind, and also on the importance for this end of committing it to memory with a view to its thorough retention. I am glad to see that among the regulations of the new code it is provided as one of the so-called extra subjects, that 150 or 200 lines of literary matter are to be learnt by heart, and the meaning and allusions mastered.

What little the children knew of arithmetic was learned by exercises with concrete objects, apples, beads, &c., with balls worked upon a kind of abacus, or by counting their fingers. At all events the first notions of numbers were gained by concrete arithmetic, a method which some English teachers do not even yet understand. It would be interesting, on closing this sketch of Athenian education, to illustrate it by entering on some detail into the theoretical views of those great teachers Plato and Aristotle, as well as to give some specimens of the practical teaching of Socrates, but time, or rather the want of it, forbids. I pass on, then, to the education of the Romans.[6]

LECTURE III.

ON ROMAN AND EARLY CHRISTIAN EDUCATION.

ROMAN education was, in distinction from that of Athens, practical and eclectic. Its theoretical aim was to form the citizen and the soldier, and to make other objects subservient to these. The Romans did not, therefore, as the Athenians did, concern themselves much about the speculative and the ideal especially as ends in themselves, but rather, as their whole history shows, devoted themselves to the practical, the real, and the useful.

If the word utilitarian had been discussed in those times by a first class Athenian and a first class Roman, the Athenian would have given it the higher sense, the Roman the lower.

It is in a kindred sense that I have called their education eclectic, an epithet which in itself denotes chosen from others, and therefore not original and self-derived; in this respect therefore the opposite to that of the Athenians. It is the very mark or stamp of a practical mind to gather from every quarter that which will aid its own purposes, therefore if its own resources are insufficient or unsuitable, to avail itself freely of the resources of others. The Romans have been reproached, and justly, with a want of originality in thinking, but they cannot be reproached with indifference to the originality of others. This we see in the eagerness with which when they once became aware of the stores of knowledge, thought, and taste, shown them by the Greeks, they seized on them and added them to their own, and in this sense, as it has been strikingly said, *vanquished Greece took its own conqueror captive*. Rome before its conquest by Greece was contented with a low state of learning, with a low platform of intellectual education. After that event it rapidly advanced in culture of every kind, but still the practical and useful had the greatest sway. The notion of aiming at an ideal, the beautiful and the good for its own sake, never did in any proper sense find a place in the Roman mind. Doing, indeed, rather than thinking, action rather than reflection, and in respect to culture appreciative taste rather than originality of genius were the characteristics of the Romans. They emphatically learnt to live by living rather than by speculating on life. It is on this principle that we may account for the comparatively low value which they attached to general gymnastic training at school. They looked upon these exercises as a proper part of the business of a *soldier*, but until the youth was to enter the service, they did not trouble him much about them. The Romans did not, like the Athenians, regard gymnastics as constituting a proper training for the *whole man* but rather (independently of their use in forming the soldier) as a recreation for their leisure hours, or even more generally, in the case of the gladiatorial shows, as an entertainment to be furnished for them by hired adepts. The gladiators, it should be remembered, were slaves, not free citizens. There was nothing that could be called *public* education at Rome, there was even less than at Athens. Education was a matter which rested more with the father than with the state, and children were much longer retained under family influence than was the case at Athens. The assumption of the *toga prœtexta*, a robe with a broad purple border, marked the age (about fifteen) at which the boy felt the family tie loosened. The assumption of *toga virilis*, the manly gown, marked the age when the youth became truly a citizen of Rome. This, like coming of age with us, was a season of rejoicing and feasting among all the relations of the family. There is something very interesting and instructive, too, in what we are told of the family education, at least in the earlier and better times of the Romans. The mother suckled the baby herself, carefully watched over its childhood, and was especially anxious (as was the father also) to nurture it in good morals. Both parents made it a part of their duty to be not only its guardians, but its companions and friends, and there is abundant evidence that not only in the well-known instance of Coriolanus, who gave way to his mother's influence after refusing to bend before any other, that the mother's influence was a real and abiding power in the social life of the Romans. The well-known story of Cornelia showing her children as her jewels also illustrates the influences of the family bond.

Both parents were studious, not only to instil excellent moral principles into the minds of their children, but to enforce the precepts by their personal example. So careful was the father, especially on this point, that in taking his son with him to public entertainments and feasts, as was the custom, he put a direct restraint on himself, and behaved himself with strict decorum in order that his example should not injuriously affect the morals and manners of his son. Respect for age, and absolute obedience, were cardinal virtues among the Romans. Not to stand in the presence of a greybeard was an offence for which death itself might be inflicted. Besides the precepts and examples of home education, there was the recounting to the children, by narrative or poetry, of the noble deeds and virtues of their ancestors, serving as incentives to imitation, on the one hand, and nourishing the feelings of patriotism on the other.

Such is a slight sketch of what is, perhaps, rather the ideal than the reality of education as distinguished from positive instruction in Rome. If, however, the ideal of theory was not always exemplified in the rule of practice, we may still admire the drift and intention of their system, a system founded on public opinion. Nor ought we thoughtlessly, in the presence of notorious facts in our times, to assume that there is no such thing as heathen virtue. We should be in a better position for maintaining such an assumption if we saw, what I for one do not see, that our own religious system ended as a matter of course in making our children religious, that is, true followers of Christ. On this delicate point I will not however dwell. Special instruction in the early days of Rome was confined to a little reading and writing, to which somewhat later a smattering of arithmetic was added. Reading was taught by beginning with the names of the letters, then by combining them in syllables, and so on. Nothing similar to Jacotot's intuitional analytical plan, popularly but insufficiently represented in the "Look-and-say" method, seems to have been known. Writing seems to have been taught by scratching letters, or imitating copies set by the master, on wax covered tablets. The style with which this was done was flat, like a spatula, at one end, for the purpose of erasing what had been written, and pointed, of course, at the other. The arithmetic, as far as it went, was concrete, taught by movable balls on an abacus, or reckoning table. This simple curriculum of instruction, nearly as extensive, however, as that of our own elementary schools, was greatly enlarged after the conquest of Greece. From that time the study of Greek under Greek teachers took the same place in the Roman schools as that of Latin takes in our own, with this difference, that it appears to have been far more efficiently taught. With Greek slaves, Greek secretaries, Greek learned men as a part of the household of the wealthy, and special daily instruction in the language itself, the Roman boys generally (and we believe some of the girls) learned, we are told, as long as fashion gave the tone for it, to speak Greek better even than Latin.

But the Greek teachers brought with them not only their language, but their literature also, and from this time the Greek classical authors took their place alongside of the Roman classics in the curriculum of higher instruction; and, what is of perhaps equal importance, these teachers introduced into the schools of Rome their own thoroughly critical style of teaching. This turned out in the end a by no means unmixed good. As time went on, attention was more and more directed to the form rather than the contents of language, more to the artistic workmanship of the casket than to the treasure which it enshrined, and hence, as is now the case in our public schools, boys became adepts in longs and shorts, accents, and grammatical niceties, without really entering into the spirit of the authors they read, or even knowing distinctly the matter which these authors taught. The consequence was at Rome that higher education at last resolved itself into the one business of forming the rhetorician and the orator, that is, of learning the art by which ears may be tickled and the taste gratified, without imposing too severe a tax on the reason and the understanding. I repeat, therefore, that the introduction of Greek teaching in the Roman schools was not an unmixed good; and it is further worth notice that it was just at the period when the subtleties of composition were most prized at Rome that the decadence of the Latin language began; that it began to fall into what we call the Silver Age. This point, which essentially involves a discussion of what is meant by *form* and *substance*, I cannot, however, farther dwell upon.

School was called by the Romans *ludus*, a word probably intended to answer to the Greek σχολή, meaning originally nothing but leisure, rest, and ease. Many teachers and children finding little leisure or pastime in the grinding work in which they are generally engaged, have sometimes wondered why the word *ludus* (play) should ever have been applied to it. Children, indeed, often interpret the word literally and practically, and school is with them a place for playing all their time, and they are apt to resent any interference with their own interpretation of the word. Teachers, however, do not generally take the children's view of the case. The true explanation of the term is, I believe, this. *Ludus* and σχολή both originally meant *diversion* (= Fr. *distraction*), that is, a turning away from the practical anxious business of life. In this sense discussion and disputing, and lecturing, were in fact a diversion of the mind. The transition is easy from the diversion to the place where it went on, and hence *ludus* and σχολή both came to mean first a school for philosophical discussion, and then a school for literary purposes. The schools were sometimes booths in the Forum and sometimes in the open space where three roads met, and hence the expression trivial schools, and also the name trivium, applied in the middle ages to the curriculum, consisting of grammar, logic, and rhetoric. The Roman business day began early, but the boys were in school earlier still, and according to one of Martial's epigrams, the scolding and banging of the scholars broke the slumbers of all the citizens, and robbed them of their peace. "You villainous schoolmaster," he says, "hated not by boys only, but by girls also; the cock has not yet even began to crow, and there you are roaring and thumping away." The stick as a means of discipline in Roman schools seems to have been much in use. Orbilius, one of the masters, was spoken of by Horace as *Orbilius plagosus*, *i.e.*, one who dealt out his blows abundantly. This method of inducing a love of learning was, however, protested against by the more judicious teachers, especially Quintilian, who denounces it altogether. The order of schoolmasters at Rome were ill paid, and, indeed, were often cheated of their fees by unscrupulous fathers. Some of them, however, seem to have got as much as they deserved, for we are told that teaching, *i.e.*, the lower kind of teaching, was a sort of refuge for men who had failed in everything else. One has known something like this in our own country, and even in our own times. We hear nothing of normal schools, nor even a hint that they were needed. Indeed, it is plain enough from all we see of elementary Roman teaching, that it was very irregularly and very imperfectly conducted. There was nothing that could be called a system. It was only in the higher schools, where the Greek influence prevailed, that real culture was found, and this mainly because in these schools was commenced the regular training by which the rhetorician and the orator was to be formed.

It may be well to supplement the direct information I have given on Roman education by referring to some of the theoretical views upon the subject which we find in Quintilian. This distinguished teacher lived in the first century after Christ. He has left us a famous treatise entitled "De Institutione Oratoriâ," concerning the formation of the orator; and it is very characteristic both of the man and of the times in which he lived, that a treatise having in view the object I have just mentioned is in fact a treatise on education generally. According to Quintilian this object is to be kept in view almost from the birth of the child. He recommends that the child for the first six years of his life should be left to his play; at the same time he stipulates that the nurses and the waiting maids should be persons of excellent character, and especially that they should speak well. The child was always to hear correct pronunciation and expression, and care was to be taken that his playmates were never children who murdered the Emperor's Latin. The boy's formal instruction was to begin with Greek, with which soon after definite instruction in his own tongue was to be conjoined lest the constant use of Greek should spoil his Latin. In learning to read, not only the names and forms only of the letters were to be taught, but their powers in combination. The combinations were the most important, to know the names only would be a hindrance. As to writing, a copy was to be scratched on the wax by the teacher; before the child imitated it, he was to go over the copy style in hand, making the forms pantomimically in the air to practise his fingers as it were. He was then to scratch it as well as he could in the wax himself. The copies were to consist of short moral sentences which were to be chosen for their value, so as to be worth retaining by the memory. In these early lessons in reading and writing, great care was to be taken not to go on too fast; the more haste the worst speed. Gently and sympathizingly the teacher was to encourage all the efforts of the young student, so as by every means to prevent any distaste to learning. Little account was to be taken of what is usually called incapacity to learn. As birds are born to fly and horses to run, so children are born to think (I am quoting Quintilian), and only want patience and time for the development of their faculties. All children have memories, and all naturally imitate what they hear and see; let their memories then and their powers of imitation be exercised, but let there be no precocious development. The tree that bears fruit too early soon ceases to bear. The most important part of the teacher's business is to study the dispositions and characters of his pupils; all, in fact, depends on this; the treatment for one child is unsuitable for another, some require the curb, others the spur. In all cases gentleness, indulgence, sympathy, must be the rule. There must be no beating. Blows are a disgrace, and the shame they cause crushes the mind, and if persisted in they harden the character, and form the slave. The supposed need for beating can only arise through the neglect of the teacher. Let them carefully study the character of the children, and blows will be superfluous. [What can be more admirable than this view?] Every child should have a good teacher from the very beginning of his instruction. The teacher should have a fatherly heart towards the child, and should be their pattern of morals and manners, should know how to temper praise and blame. It is therefore a great mistake to suppose that a middling, only tolerably efficient, teacher is good enough to commence a child's instruction. Unless the earliest teacher is efficient the task of him who is to succeed is doubled. He will have to go over the work done again, as well as to add his own. Besides, every teacher ought to know thoroughly the theory of teaching, and therefore to see the connection of the lower with the higher style of instruction.*

These are specimens of the kind of general notions which Quintilian presents respecting education. Into the minute directions which he gives for training the orator, I have no time to follow him. You will have gained some idea of his intelligence and judicious care as an educator from whom much may be learnt. He is not a philosophical writer; he knew nothing of pedagogy; but he must have been a first-rate practical teacher. There is one point of his practice which I may notice. He strongly insists on the importance of committing to memory passages from classical writers, especially after they have been minutely studied, that is, analysed and critically investigated, and he recommends this practice, not merely for the sake of the matter stored up in the memory as in a storehouse, but for the sake of strengthening the memory itself.

In giving some account of Quintilian's notions, we have already overpassed the boundary between ante-Christian and post-Christian times, but we were still dealing with heathen education. I have now to handle briefly, but as distinctly as I may, the Christian education which followed it. This grand difference between the two systems was in the theoretical ideal. The theory of Roman education, for instance, aimed expressly at forming the man for *this world*, that of Christian education aimed at the preparation of the man for the world to come. In the light of that higher theory it is easy to see that the objects of the worldly man's ambition must sink into comparative insignificance. At first, as we know the followers of Christ were among the poor, unknown and uninfluential, and could not even had they desired it have taken any leading part in public business. At this time among the Christians family education and no other could be said to exist. In proportion, however, as Christianity diffused itself as a leaven in society, and began to grow respectable, its adherents, many of whom previously to their conversion had held posts of distinction, took pains to have their children educated for their station in society, and by means not differing externally very much from those employed in heathen education. The spirit, however, was widely different, and what is of great importance, the family influence, that of the father and mother especially, worked in the most intimate combination with other strictly formed influences in stamping on the Christian education a marked individuality. Children were to be brought up, not for the world, not for themselves, but for God. All the means of education were to be tried by this test; those that answered to this test were to be admitted, those that did not were rejected. Culture and training for God being convertible terms, all was subordinated to the end, and, as I have said or indicated, the family influence was the mainspring of education. The Christian profession of the parents, their earnest faith leavened all the arrangements of the household. Christian servants, Christian teachers, Christian pastors, all took their share in deepening the religious influences on the children, and in helping to make them good soldiers of the Great Captain of their faith. At the same time the personal example of the parents, who were solicitous not only to appear but to be models, for their children's imitation, of patience, long-suffering, self-sacrifice for Christ, of devotion even at death to his service, could not but produce a profound impression on the children, especially when seconded by a principle never before recognised in the world, that of love to each other for God's sake. Thus the natural and spiritual elements of human nature combined in forming the theory of Christian education. The original purity of the theory, however, was somewhat sullied when the profession of Christianity became respectable, and it was seen that men by means of that profession might attain positions of eminence in the world, which the early Christians not only did not aim at, but thought inconsistent with their condition as pilgrims and strangers on the earth. At this time (say the fourth century after Christ), it does not appear that the school ideal at least of Christian education was very different if at all from that of worldly education in general. This remark, however, may not be absolutely correct. It is founded for the most part on a special experience, that of St. Augustin. The point on which I have some doubt and on which, therefore, I may possibly mislead you, is whether the school to which he was sent was strictly speaking a Christian school. At all events the facts which St. Augustin relates of his school life in his "Confessions" are interesting in themselves, and give a lively picture of education in the fourth century. He was a child of fiery temperament, a rebel against rules and regulations of every kind, of a remarkably strong individuality. These points of character seem to have received no consideration whatever in the treatment pursued by his teachers. He appears by his own confession to have been always offending, and as a consequence to have been always suffering punishment. If these teachers knew anything of precepts on this point, they at all events systematically neglected them. Banging, banging continually, that was the only means employed for extirpating the old Adam, who was seated in the very heart of the child. The result was not only that the old man clung the stronger to his place, but developed resources which might otherwise have remained unemployed. Augustin tells us that this Spartan discipline had the effect of hardening his heart, and making him a cheat, a liar, and a thief. It is difficult to surmise from his account of himself what he might have become, had it not been for the sweet counterworking influence of his mother Monica's love; yet even she, we are surprised to learn, laughed with the rest when the high-spirited boy, on his return from school, told of the severe beating he had had just for a little play. Foolishness, indeed, of a certain kind seems to have been bound up in the heart of this child, but the rod of correction drove it *in* not *out*. He seems to have been an ardent lover of the fives court, which was the scene of victories on which he prided himself, and the thought of which would intrude into the mind, which ought to have been filled with the subjects of instruction. Such was his determination to be first in ball playing, that he confesses that he did not always play fair, and took advantage of circumstances which favoured himself, while he resolutely disallowed them in the case of others. As to matters of instruction, Greek he cordially detested and failed to learn, not from stupidity (he was anything but stupid), but because he would not learn it; Greek, however, cost him many a flogging. Virgil was his delight. He eagerly followed the wanderings of Aeneas, and wept scalding tears over the death of Dido, who killed herself for love. Arithmetic he hated as much as Greek, and speaks of "one and one are two, and two and two are four," as an odious chant.

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* Those who have read my pamphlet on the Training of the Teacher will recognise in these remarks of Quintilian an exact similarity of tone and aim, though when I wrote mine I did not remember his at all. I have treated the notion that any teacher is good enough to commence a child's instruction as an educational fallacy which it is very important to unmask (Collected works, vol. i: Lectures on Education, page 105).

But I cannot dwell longer on Augustin and his boyish education, especially as I wish to quote for you some passages from a letter written by St. Jerome in the fifth century, to a lady who wished to educate her daughter for God's service. These passages will show what was meant at that time by a strictly religious education for girls. "She (the young lady, then a child) is to learn nothing, hear nothing, say nothing, but what concerns the fear of God. Bad words she must not understand; worldly songs not even know of; sweet psalms are to be constantly on her tongue. Her playmates and waiting maids must be debarred communication with the outside world, lest they learn there anything which would contaminate her. Give her letters made of box or ivory, and tell her the names of them. Then let her put them together so as to make syllables and words, and let these words generally be the names of prophets and apostles. Get as a teacher for her a man of approved character and knowledge. I do not think a thoroughly educated man would think it beneath him to take charge of a young girl of noble birth. The early grounding is so important. Even the tone of the first sound, and the first citation of rules, is quite different when heard from the lips of an educated, than from an uneducated man. She should learn nothing in her tender age which she is to unlearn afterwards. Her dress and external appearance are to show to whom she is dedicated. Give her no earrings; adorn not the face, which is sacred to Christ, with white lead and purple die; encircle not her neck with pearls and gold; load not her hand with precious stones; colour not her hair unless you wish to prepare her for hell fire. If pearls are given to her let her sell them, and buy one only —the pearl of great price. Let her not go out without you to martyr-churches, nor to congregations of people. Let no young men with curly locks cast love glances at her. Let a man of advanced years and of approved character be found to take charge of her, and accustom her to get up in the night for prayers and psalms, and in the morning to sing songs of praise," &c.[7]

These are specimens of the injunctions left behind by the good father Hieronymus, and with them I must conclude my sketch of early Christian education.

We now pass on, and for want of time leap over three or four centuries, and place ourselves for a minute or two alongside of Charlemagne, who appears as an active patron of education in the eighth century. Whether this remarkable man really cared for education itself, I can hardly say. It is difficult to frame a theory which will explain his actions. Of course he was a very religious man—an ardent disciple of Christ. Was not this clear enough in his dealings with the Saxons? Did he not ruthlessly massacre them by thousands in cold blood, even after they had laid down their arms? But I cannot go further into his history. We cannot here inquire whether there is better ground for the sarcasms of Gibbon or the more generous appreciation of modern historians. The fact remains that he was a patron of education, and set up schools where there had been none before. The origin of Charlemagne's educational zeal appears to have been as follows. Whatever may have been his inner motives or personal religious sentiments, he was undoubtedly a warm friend of the Church, and as such displayed great zeal in the building of churches and monasteries. When, however, the churches were built, a difficulty appeared for which he had not provided. There were scarcely any but grossly ignorant priests to be found to perform the service in them, as at that time clergy and laity were equally without instruction. The Roman imperial schools had fallen into decay, and even the few which are recorded as having been founded by Christian bishops before the time of Charlemagne, had also perished. Learning, indeed, has never, since the pre-Roman times, stood at so low a level in Europe; and it is important also to note that Latin was passing out of use as a vernacular, and had to be taught as a learned language. Charlemagne set himself to reform this state of things, which, however, the bishops had not troubled themselves at all about (as appears from the answers they sent to his circular letter of directions), and ordered schools to be established in the monasteries in which reading, writing, ciphering, and singing, especially of psalms, were to be taught. As an evidence, however, of how much the teachers themselves needed teaching, Charlemagne directs that the priests are to be sure to remember to learn the Creed, and the Pater Noster in Latin, adding that those who were neglectful to do so were to be punished with fasting and other modes of discipline. This being the state of things, we easily see that the real design of all the stir made about education was to get together the poor children of the parish, and find out which of them could be trained up as priests; that is to say, the object was not education as a culture for the people, but simply as a means of selecting fitting persons for the services of the Church. I give no opinion about the importance of this end, but simply say it was not the same as the instruction of the people for their own good, or for that of the commonwealth generally, except so far as learned ecclesiastics were employed in civil business. One thing is certain, that from Charlemagne's time, even to our own, whatever could be called public education has remained in the hands of the Church.

It was only the other day that it was declared by statute law of England that henceforth the master of an endowed school need not be in orders. Some of the cloister schools founded by Charlemagne were really seminaries of learning, even though obedience to the Church was the chief virtue specially cultivated in them. The curriculum at all events sounds imposing. It consisted of seven sciences, which dated from the sixth century: grammar, rhetoric, logic, forming the *trivium;* arithmetic, geometry, music, and astronomy, the *quadrivium.* It appears, however, that although the programme was promising, the performance was very unsatisfactory, until at last, in the fourteenth and fifteenth centuries, the revived study of the classical languages inaugurated a new era in education.

This remark brings us down to the fifteenth century, with which I shall commence the next lecture; but before I conclude the present I will give you some notion of the education of the age of chivalry. Chivalry is so associated with romance, that we sometimes forget that the training of the knight and squire was after all a special institution, and really belongs to the history of education. And one thing very noticeable with regard to it is this, that it was substantially independent of the clergy. The regulations which grew out of the germ of chivalry were mostly independent of the Church. There was nothing certainly to hinder the young squire from going through the curriculum of the seven sciences; but then he had his own seven *probitates*, or accomplishments, to learn, *i.e.*, reading, swimming, shooting with the bow, boxing, hunting, chess-playing, and verse-making, and if it sometimes happened that these arts occupied the youngster's time sufficiently, we can hardly wonder that the other seven did not get much attention. Into the particulars of the grades of training by which the boy at last gained his spurs and became a knight, I cannot for want of time enter, though they are really interesting, but I shall close with some account of what later chivalry did for the young maiden in the way of education.

She, at all events, was in those days thought worth some teaching, and from her mother she received lessons in spinning and weaving, and cutting out clothes, &c., as well as elementary instruction in the virtues of herbs, and the treatment of wounds. Nothing is clearer than that in the age of chivalry the young lady was often the only doctor that could be found, and often the life of the wounded knight depended upon her treatment. Several of the old French romances of the thirteenth century bring before us cases in which the young lady of the castle undertook the care of a wounded young knight and treated him with potions, plasters, and fomentations according to the approved method of the times, and sometimes without exciting much surprise that they themselves by their beauty and grace and tenderness inflicted on the patient a deeper wound than that they professed to cure. It is noticeable that it is only surgical cases, such as wounds, dislocations, &c., that they undertake, while physicians properly so called alone treat diseases and maladies. It is clear, then, from these romances that young ladies of the middle ages were taught (that is, in the family) surgery, and that they were generally very successful practitioners.

She went with her brothers sometimes to the church school of the town to learn religious reading and writing, and also continued her education at home. She read romances and chansons and sometimes even tried her own hand at framing a lay, and was taught singing and lute playing. Her home education was sometimes supplemented by a residence for a time at some castle of the higher nobility, where, under the chaperonage of the Countess or Duchess, she was brought out and learned how to conduct herself under the various circumstances of life. This part of the young lady's education was the counterpart of that of the boy who entered the service, as it was called, of some nobleman, and became a page or damoisel, both names at that time denoting young gentlemen of birth and position. Here, however, I must leave the subject.

¶ Cōpendium totius grammatice ex variis auctoꝛibus
Laurētio/Seruio/Perotto diligenter collectum. & verſibus
cum eoꝛuꝫ interpꝛetationibus conſcriptum totius
barbarei deſtructoꝛium & latine lingue oꝛnamētum non
minus pꝛeceptoꝛibus q̄ pueris neceſſarium.

A MEDIÆVAL SCHOOL.

p. 35.

LECTURE IV.

THE REVIVAL OF LEARNING.

From the age of Charlemagne to the commencement of the 16th century is a large leap to take in the History of Education, but we have no choice but to take it. Some facts, no doubt, might be picked up in our flight, but, compared with those we have now to consider, they are of comparatively little importance.

We must imagine, then, that during these ages, which are usually called dark, there were here and there bright lights illuminating their immediate neighbourhood, though scarcely visible beyond it. School instruction all over Europe was at a low ebb generally, and was confined almost altogether to the study of Latin, which was the *lingua franca* of what scholars there were, and which was wanted for the service of the Church. Latin, then, was studied in the middle ages, not so much for the sake of culture but as a matter of business. Perhaps *studied* is hardly the right word, for it would appear that even the school-men began to be contented with the most slovenly use of the language. The *Oxoniensis loquendi mos*, the Oxford style of speaking Latin, became proverbial, and was only matched for its badness, we are told, by that of Paris.

It would, however, be a mistake to suppose that culture of every kind had ceased to exist, as some people think, in those ages which are usually called dark. If that were the case, how could we account for the thousands of eager scholars who crowded the lecture halls of Paris and Oxford in the 13th century. There was culture then, but it was of an unsatisfactory kind. It consisted for the most part of scholastic disputations—of endless discussions of perfectly insoluble metaphysical questions—a mixture of theology and philosophy. An examination into it would doubtless be interesting, but hardly in view of my immediate purpose—the history of general or school education—very important. I therefore pass on, and refer you for information upon it to Hallam's work on the middle ages. At last a reaction took place, and it was very much due in the first place to the influence of Dante, Petrarch, and Boccaccio, in the public mind of Italy. These great writers, and especially the first two, presented in their work types of artistic culture of a kind which the world at once recognised, as like in essence to that which had been characteristic of the ancient classics who had so long lain under a cloud.

The public of Italy and gradually that of Europe admired the phenomenon, and began to enquire about its origin, and to imitate as well as admire. This rising taste, fostered by the establishment of new universities and academies, such as those of Vienna, Florence, &c., was quickened by the fact that Greek teachers, driven from Constantinople by the conquest of the Turks in 1453, began in great numbers to settle in Italy, bringing with them a knowledge of *Greek* literature—a literature which, though continuously cultivated in the east of Europe, had quite died out in the west. The language these teachers spoke was, indeed, different from that spoken in ancient Athens—it was Romaic—but they had thoroughly studied the old language and the literature embodied in it, and they now came to create as it were a new epoch in European civilisation. For hundreds of years no Italian had been acquainted with Greek literature, and now Italy awoke to the discovery—for discovery it was—that, to use an expression applied by Aretino, "all learning came from the Greeks." The effect was remarkable; academies and professorships of Greek were founded in the chief cities of Italy. Eager students from all the countries of Europe flocked to them; and our countrymen, Grocyn and Linacre, the founder of the College of Physicians, among others. And the great scholar Erasmus, finding himself unable to carry out his darling project of visiting Italy, learnt Greek in Oxford from Grocyn and Linacre. But this new study powerfully quickened the old ones, and from this time Greek and Latin as a means of culture were reinstated in the places they had formerly occupied in the flourishing times of Rome. On looking, however casually, at this remarkable revolution we cannot but be struck with the fact that we see here for the second time the extraordinary effect of Greek literature on education. The first, of course, is that to which I before called attention, which took place in ancient Rome after the conquest of Greece.

In this brief sketch I can but skim over the surface of things, and must therefore hasten forward in my narrative. The study of Latin and Greek which had now become established in the schools and Universities of Italy soon found its way into those of Holland and Germany. The college of Deventer, in Holland, one of the schools of the Brethren of the Common Life, was among the first to adopt this curriculum. Hegius, who presided over it in the middle of the 15th century, thus enthusiastically speaks of the importance of Greek: "If any one," he says, "wishes to understand grammar, rhetoric, mathematics, history, or Holy Scripture, let him learn Greek. We owe everything to the Greeks." Erasmus was a pupil of this master, and the first stimulus to that study in which Erasmus was afterwards so particularly distinguished no doubt was received at Deventer.

It is a fact which cannot be disputed that this renascence of classical culture was a powerful co-operating influence among others in bringing about the Reformation. To discuss its exact importance as a factor in producing that result would carry me too far away from my immediate purpose. It is, however, quite consistent with my purpose to give a brief account of what was said and done in the matter of education by some of the chief movers in that great event. It scarcely needs to be said that in the view of the Reformers, whatever else was excluded from education, religion ought to be included, while their unquestionable earnestness and piety gives an interest and a weight to their utterances on this point which is not always to be found in modern discourses on religious education. Let us listen for a few minutes to Luther's enthusiastic words on this subject. They are contained in a letter addressed by him in 1524 to the Burgomasters and Town Councillors of all the towns of Germany, moving them to found and maintain Christian schools.

"If Christianity," he says, "is to rise in its power we must surely begin with the children, but we are not to fret them with our words or actions, but to draw them on in a better way, so that they may begin to learn and be diligent, obedient, temperate, quiet, and veracious. Anxiety for this end is much more needful than getting indulgences, making prayers, visiting strange churches, and performing vows.

"Family education must be assisted by the school. Young scholars and students are the seeds and sprigs of the Church. For the sake of the Church we must have and maintain Christian schools. God maintains the Church through the schools. Let every one then send his children to school. It is only the devil who desires the people to remain dull blocks. Don't go to sleep then, and let the devil be lord and master. The people that we want will not grow of themselves. We cannot carve them out of wood nor hew them out of stone. God will not work a miracle to help us when he has given us wherewith to help ourselves. I hold, then, that it is the business of the rulers to compel their subjects to send their children to school. If rulers may compel able-bodied youths to carry spear and gun for the service of war, how much more may they compel them to go to school and prepare themselves for the service of the Church and the world. There are schools now to be sure, but they are places for asses, mere devil's schools. I wish they were all flung down a precipice, or turned into Christian schools. The schoolmasters there are tyrants and stickmasters who martyr the boys about *casualibus* and *temporalibus*, that is about nothing at all, amid blows, trembling, misery, and sorrow."

We see, of course, in all this more zeal than judgment. If Luther had become—as he says he would have wished to be, had he not been a minister—a schoolmaster, he would probably have found out that he did not know everything about the business of teaching. But we see and admire the earnestness of the man striving after a noble ideal, and forgive him for speaking somewhat at random of what he did not fully understand.

Luther is enthusiastic about languages, "Let it be well understood," he says, "that we shall not keep the Gospel unless we keep the languages. They are the sheath which contains the sword of the spirit. They are the shrine that holds the jewel; the basket which holds the bread, fishes, and remnants of the feast. Without the sacred tongues, and without the Gospel, Germany has sunk so low that her wretched people, like poor dumb cattle, can neither read nor write good German, and have well nigh lost the use of their natural reason. Even if there were no soul, no heaven, and no hell, there would still be need for schools to train boys and girls into sensible men and women." Luther would have things as well as words taught in the school, also mathematics, history, logic, gymnastics, and music. "Music," he says, "is the best of all the arts, it dispels the sorrow of the breast. If a schoolmaster does not know music, I have nothing to say to him. Music is a beautiful, divine gift of God, and next to theology."

"Luther's scheme of national education," says Mr. Stuart Parker,* "embraces high and low, rich and poor; or rather, perhaps, he hardly supposes that the high-born would deign to devote themselves to the learned professions. But every poor boy of good capacity is to be enabled, nay compelled, to study the learned tongues, and to fit himself to serve God in Church and State. Latin and Greek

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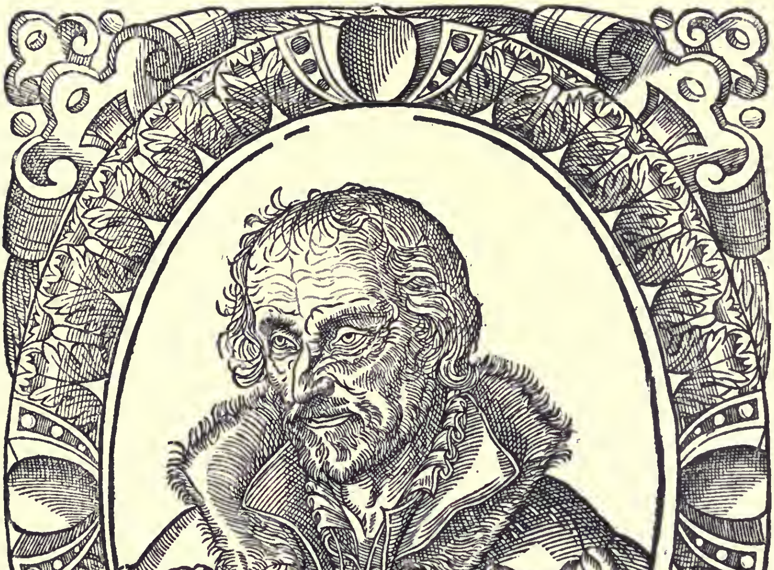
* "On the History of Classical Education." Essays on a Liberal Education, 1867.

PHILIPPVS MELANCHTHON.



p. 39.

and Hebrew are not to be articles of luxury for the rich, but to be taught freely to all who will learn in every town." These are some of the great reformer's notions about education, and it is worthy of remark that only a little later a man of somewhat the same stamp—John Knox—also a reformer, expressed his decided opinion on the propriety of *compelling*, not the children of the poor only, but of all classes, to be sent to school. His words are: "The rich and potent may not be permitted to suffer their children to spend their youth in vain idleness," and he adds, "that the studies of their children should be so conducted that the commonwealth may have some comfort by them."

But I return to the German reformers, though this reference to Knox is by no means beside the question. The two most eminent names besides Luther's are those of Melanchthon and Erasmus. Melanchthon was a powerful character—a man who did not talk, but act, and so effectually that he gained the name of *Præceptor Germaniæ*, the Præceptor of Germany; "*parens omnium nostrum*, the father of us all," to use the words of an eminent fellow-labourer. Melanchthon was a remarkable man in every respect. At fourteen years of age he was a Bachelor of Arts; at seventeen, a Master of Arts, and a public lecturer on Virgil and Terence.[8] He wrote a Greek grammar when he was fourteen, and a Latin grammar which went through fifty editions, besides manuals of instruction on logic, rhetoric, physics, and ethics, while his ordinary writings are full of precepts and principles of education. I have in my hand Melanchthon's Latin Grammar, and bound up with it a curious treatise of his—*De Miseriis Pædagogorum Oratio*—both of which may be examined at the end of the lecture. This latter work presents, in fact, a noteworthy contrast in its tone to the enthusiastic utterances of Luther on education. It is the experience of the practical man *versus* the talk of the theorist. If, indeed, we are to take *au pied de la lettre* Melanchthon's assertions about the condition of the schools of his time, and these apparently the Christian schools from which Luther hoped so much, nothing could be worse. "The boys learn nothing, care to learn nothing, and spend all their energies in cheating the master. They are, indeed," he says, "at home carefully taught religion and good morals by their parents, but when they come to school, that is every day, you might as well try to tame lions and bears as these religiously-trained boys." In fact, he does not make much account of the domestic training—"Look," he says, "at those good parents, many of whom call themselves evangelicals, you see that they don't teach their children their prayers, the Ten Commandments, or anything of the sort. Many of them, indeed, teach contempt for religion." This book shows plainly that long preachings and explanations go for little in teaching. While the teacher is bursting himself (*se rumpit*) with talking, one boy goes to sleep (sleeps securely with both ears), while others are too much awake, but not for him, their minds are abroad in another world (*foris est animus, tanquam in alio mundo*) thinking about dice-playing, rows, and every kind of mischief, while others still play tricks to tease the master, and are delighted beyond measure when they succeed. And so, he adds, the master has to go over the same thing time after time (*sex centies* is the Latin phrase), and after all no impression is left. "Why!" he says, "the labour of Sisyphus was nothing to this." The boys, indeed, that Melanchthon describes must have been a bad lot, and the teachers, one would think, altogether ignorant of our science and art of education. Melanchthon admits that all the boys were not bad, but he gives us to understand that the public generally took for granted that things were going on much better than they were. He pointedly says, "Alongside of one good thing, God has always given us two evil things, but the pious and prudent" (this is a little sarcastic) "put forward in the light, and dress up the good things, while they hide away and put on a false gloss on the bad ones."

I wish I had time to enter more into the grievances of schoolmasters of the sixteenth century as Melanchthon recites them. Some of them are so ludicrously exaggerated that the effect is to move laughter rather than pity, and the result most assuredly is to produce a conviction which amounts, indeed, to a principle with me—that teachers who are always complaining of the stupidity and bad conduct of their scholars have generally themselves to thank. If the art of teaching can do little more for children than leave them what it perhaps finds them, ignorant, dull, stupid, and ill-mannered, we had better cease talking of it as an art, for, in that case, if an art at all it must be the meanest and most inefficient and most worthless of arts.

Melanchthon was no doubt a most accomplished man, a powerful teacher of men. Whether he is equally to be admired as a trainer of children is to me, I confess, a matter of some doubt. The fact is, Melanchthon himself does not appear ever to have taught a school. He was, to be sure, a great compiler of school-books, but that is a very different thing. I cannot, however, dwell further upon him, but must spend a few minutes on Erasmus.

H. Holbein p.
Vertue s.

D. ERASMVS ROT:

He, too, was a very remarkable boy as well as man.[9] His master at Deventer, where he went to school at nine years old, one day when delighted with his work, clasped his arms round his neck and exclaimed, "Erasmus, you will reach the topmost pinnacle of learning;" and when he was twelve years of age, another eminent man, looking at the boy's hand-writing, and the shape of his head and his clear bright eyes, significantly (not very judiciously perhaps) said to him "*Tu eris magnus*," "You will be a great man."

Erasmus travelled over Europe in search of knowledge, came to England, being unable to get to Italy, as I have said, to learn Greek—when he became the personal friend of Sir Thomas More, Pace, and Dean Colet, the founder of St. Paul's School, the latter of whom he assisted in various ways in settling the curriculum of the school, writing himself a little treatise on the eight parts of speech, and prayers for the use of the scholars. He also wrote a "Concio de puero Jesu," a discourse about the child Jesus, which was delivered by one of the scholars at, I believe, the opening of the school. I have it with other treatises of his in this little volume. He was about this time appointed Margaret Professor of Divinity, and Lecturer on Greek in the University of Cambridge.

Many most valuable educational principles and directions are found scattered up and down in the numerous *opuscula* of Erasmus. I will quote a very few. "As soon as the child can learn anything (whether in his third, or fifth, or seventh year matters not) he must with smiles, praises, encouraging words, promises, be led into the path of learning. No threats, blows, or scoldings are to be allowed; he must begin with writing and pronouncing the letters of the Greek and Latin alphabets, and at the same time, for his religious education, he must learn to bow at the name of Jesus, to fold his hands in prayer, to kiss the crucifix; but throughout kindness, not harshness, is to be the governing principle. A good master must be found for the child, and when found, he should be handsomely paid. Many people strangely forget this, and pay their grooms and falconers better than the teachers for their children. Yet truly the entire life of men depends on what they are made by their teachers. Knowledge alone is not a sufficient qualification for a teacher. Moral worth is equally important, and skill in managing the varying dispositions of children. He who unites in himself such qualifications cannot be too highly paid.

"Rules of grammar should be as few and as concise as possible. Power in language comes not from rules, but from use in conversation, and the assiduous reading and study of good books. The memory must be systematically cultivated. The most powerful means for this *are thorough understanding of the matter itself*, the order of the thoughts, the groundwork of the whole; or if technicalities and formulæ are in question, by having these written or printed on large sheets to be nailed up against the walls of the bedchamber, and wherever they are likely to meet the learner's eye."

"Imitation is a valuable means of assimilating the spirit of classical authors. We are not, however, to confine our imitation to one author, but to get good from all, as the bees collect honey-stuff, not from one plant, but from flowers and herbs of all kinds; and when they have gathered it, convert it into honey, which has neither the taste nor the smell of the separate flowers, but is the combined product of them all."

"Girls are to be taught as well as boys. Indeed they ought to have more care than boys; their feelings are quicker, their minds less robust, the consequences of their tripping more serious. The utmost care, then, should be taken to train them well, and particularly to keep out of their way bad examples. Many think that the education of maidens is secured by shutting them up and keeping them away from the sight of men until the marriageable age, while in fact their characters are often much more injured by the companionship of silly women than they would be by the society of men. Many think it is folly to give a thorough education to girls, but the judicious well know that nothing nourishes a noble and modest disposition more effectually than the discipline of instruction."

It will be easily seen from what I have laid before you of the notions of Luther, Melanchthon, and Erasmus respecting education, that their influence in the movement for founding new schools must have been considerable. Some of these soon, under active and intelligent masters, made a reputation for themselves and their masters. I am now, of course, speaking of Protestant schools. I can only refer, and very briefly, to two of the masters as types of different theories, rather, perhaps, of teaching than of education. Both were characteristic of the times. I may say by the way that although Melanchthon himself never was a master or director of any establishment, yet he aided in forming schools, and almost all the most eminent teachers or masters had been private pupils of his

JOHANN STURM.

1507–1589.

own. This was true at least of one of the two very different men to whom I am about to refer.

Valentine Trotzendorf was Rector of the school at Goldberg.[10] He was an enemy to every kind of slavery, and earnestly desired to develop the intellectual powers of his pupils. He therefore took great care to promote their physical education by special gymnastic exercises. He delighted in seeing them run and wrestle in the playground, praised the successful, blamed the bunglers, and yet (a mark of the prevailing defective views on the subject) made a special law forbidding them to bathe in the summer, to go upon the ice in the winter, and to divert themselves with snow-balling. He recognised education as an art which was to be acquired by practice and study; he therefore trained the elder boys for teaching by getting them to teach the lower classes under his direction. His fame was so great that it attracted to his school boys and men from distant parts of Europe—the boys to learn Greek and Latin, the men to learn how to teach. Trotzendorf was, indeed, as Melanchthon says of him, "as much born to direct a school as Scipio Africanus to direct an army."

The other schoolmaster to whom I referred is Johannes Sturm,[11] the famous director of the school at Strasburg. The entire object of his teaching was to make scholars in Latin, and above all in Ciceronian Latin; man's chief end was to read, write, and speak Ciceronian Latin. Words, he said, come before wisdom; words, then, are the prime business of instruction. The full course for this purpose was twenty-one years, six at home, ten at school, five at college or university. Of the ten years, eight are required for gaining purity and perspicuity, two for adding the graces of style. For this everything else was sacrificed; history, geography, natural history, physics, even instruction in the mother tongue, found no place in his scheme. Arithmetic was taught only in the highest class but one, and the early books of Euclid and a little astronomy only in the highest. "Ciceronian Latin," says Schmidt, "was the motto of Sturm's gymnasium, the destructive catchword which took the place of the harmonious development of the youthful mind." These trenchant words of Schmidt's do not, however, settle the question; there is much to be said if one had time to quote it, on the other side. The worst result, it appears to me, was the spirit of routine which it engendered, the slavery in which it kept the mind, and the consequence of this, as time went on, was that in the higher schools and colleges of Germany, logic, metaphysics, scholastic theology, took the place of every other study, so that at last even Greek was shouldered out, and the education (save the mark!) of Germany resolved itself into an endless strife about words, about subtle questions which could not be settled because the only appeal was to authority and not to the nature of things.

Whether, however, Sturm's method was, if tried by a strict science of education, right or wrong, nothing can be clearer than that it was very popular, though this again is no test. We are told that in Sturm's time there were thousands of pupils at the Strasburg schools. There were two hundred boys of noble birth, twenty-four counts and barons, and three princes, and there was, moreover, a school for poor children. Sturm's pupils were sought after to be the rectors and teachers of other schools. His school books were adopted with his method almost everywhere,—by Ascham in England, by Buchanan in Scotland. "In short," as Mr. Stuart Parker says, "if Melanchthon was the instructor, Sturm was the schoolmaster of Germany at this time."

My sketch of the German education of the sixteenth century would not be complete, however, without some reference to the elementary schools.

The school course here consisted of catechism, singing of psalms, reading, writing, and ciphering. Reading was taught in the usual way, great importance being attached to the children knowing the names of the letters. Writing was taught when they could read fairly. (It is worth notice that in 1520 Valentin Ickelsamer published a little work on learning to read in which he showed how this might be done without naming the letters.) How the children were brought to a love of learning in these schools we may gather from one instance which, however, appears to be typical. It was a regulation of the school direction at Elbing that the teacher is not to use a stick and rod to beat the children on the head. This seems reasonable enough, but the regulation goes on to suggest that the teacher may indemnify himself for this restriction by such means as clutching, slapping, mouth-dabbing, hair-snatching, varying his entertainment with a little ear and nose pulling, but no stick, on your life, no stick!

LECTURE V.

THE JESUITS AS EDUCATORS.

In the last lecture we brought down our history to the times when schools on Protestant principles had become firmly established in Germany, and presented before you John Sturm, as the typical schoolmaster of the sixteenth century. Words before and in preference to things. Latin before any other language, even the mother tongue. Cicero before any other Latin author. These were the distinctive features of the Sturmian system, a system which, as we saw, sacrificed almost everything else to secure these objects, and demanded on an average twelve years of a boy's life for the purpose. It is not very long since nearly the same might have been said of Eton as I have just said of Strasburg.

The success of the Protestant schools, aided as they were by the influence of the Reformers, and energetically carried on by such men as Trotzendorf, Neander, Sturm, and many others, began before long to excite the earnest attention of the Catholic party, who saw that if they were to hold their own at all it must be by doing what their assailants were so actively doing, establishing schools and infusing a new spirit into them. The old cloister schools were well nigh asleep, their inefficiency was become a bye-word. These must be thoroughly waked up and others of a different type founded. To this purpose the Jesuits devoted themselves with remarkable zeal and with a success so striking that they soon outstripped their competitors in the race, doing, in fact, what these talked about but did not really do.

Mr. Quick does not overstate the matter when he says,* "With characteristic sagacity and energy they soon seized on education as a stepping-stone to power and influence, and with their talent for organization they framed a system of schools which drove all important competitors from the field and made Jesuits the instructors of Catholic, and even to some extent of Protestant, Europe."

As the school system was a part of the Jesuit machinery, and was intended to work in harmony with the rest of the means employed towards the attainment of a certain end, it is important to consider for a moment or two what that end was. The professed end was to promote true religion, the religion especially of Jesus. All things were to be done *ad majorem Dei gloriam.* The real end was to gain for the ecclesiastical authorities an unlawful power over the hearts and consciences of the people. I mean by unlawful power a power which no man has a right to have over another, let the pretence be what it may. The direct means for accomplishing this end was the education of children and the training of young men; and on a principle somewhat like that of the Spartans, the strong and vigorous were selected for life, the weak and infirm were left, comparatively speaking, to die. The sharp eyes of the superiors were ever on the look-out for such pupils as were likely to turn out good instruments for the service of the order, which, according to them, was the same thing as the service of God. The problem was how to subjugate the moral powers of the pupil, and at the same time to quicken his intellect, and no system perhaps was ever more skilfully contrived to accomplish both these purposes. Both, indeed, were necessary parts of the system. The complete subjugation of the will that was demanded would, it was seen, if carried on alone, have deadened those intellectual powers which it was so important to quicken. To promote mental freedom would, on the other hand, interfere with and neutralise the discipline which demanded complete subjugation of the will. Entire, unreasoning, slavish obedience, therefore, was not merely praised as an abstract virtue, but practically insisted on, and, indeed, secured by ordinary and extraordinary means. Not only was disobedience to every regulation, however minute and vexatious, an offence against the authorities, but a sin against God. If charged with this sin the offender was to kneel down in the middle of the room, listen earnestly and humbly to the charge, to make no excuses, show no irritation whatever at the charge, even though perfectly innocent of it, or though it was much exaggerated. The occupation of every hour, nearly every minute of the day, was minutely prescribed, not only what every pupil has to do, but what he is to think and feel, and even in what is called pastime he is to be repeating to himself what he has heard at lectures and lessons. He was always to be silent except in recreation time, and then to say nothing but what was necessary, and that only in the presence of two or three elder youths who were united with him in a group; nor could he walk anywhere without the company of these others. These elder youths, who were in fact spies, were to be present whenever he spoke to any one from without, his mother being the only exception. Without express permission he could neither write nor receive letters, and in the latter case they were seen and broken open by the Superior. In fact, everything was prescribed ;—What he must do when he awoke in the morning; the prayers he was to offer and the exact words of them ; the attitude he was to take in repeating them, including the preliminary kissing of the ground; the employment of his thoughts at meal times (when the thought of getting any enjoyment out of his food was to be rebuked by the conscience as a sin to be afterwards acknowledged at confession); and the attention to be given to the reading of devotional books which went on all the time. Then certain hours were prescribed for self-examination; at mid-day he was to call to mind and repent of every failure, however trivial, of which he had been guilty since the morning; in the evening he was to do the same with regard to the interval since the last "Recollection," as it was called.

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* "Essays on Educational Reformers," page 1.

I cannot enter on more minute particulars, though they are ready at hand, on this part of the subject, but you will see from these specimens that obedience was no empty word but a living fact in the system of the Jesuits. I may, however, further state that it was secured, riveted as it were, by the demand of unreserved, explicit, minute confession, and that in order to make this confession effectual as a means of revealing the inmost soul of the youth to the superior another powerful means of obtaining the desired end was unscrupulously employed. This was "delation," or, in other words, espionage of the meanest and most scandalous kind. Every one of the community was bound by the very principle of obedience to be a spy on the action of the rest, and to report the result to the Superior. Whatever any one might know or suspect of the conduct, private habits, or secret dispositions of every other, he was, unless he would incur punishment of some sort himself, to add to the Superior's stock of information, and to enable him by means of it to check the account given by the individual himself at confession of his faults or offences. As Isaac Taylor (*Loyola*, p. 296) puts it, "Every Jesuit is a spy upon every Jesuit, a network of perfidy embraces the entire community, and from its meshes not even those highest in authority stand for a moment clear. Every functionary knows that he is minutely watched by every eye around him, and that he may be reported and accused to the central authority without his cognizance of the charge, from which he has no opportunity to clear himself."

Such, then, are some of the means by which the chains of a spiritual slavery, more complete, real, and binding, than anything else of the kind known in history, were forged and fastened on the human mind by the institution of Jesuitism, and all *ad majorem Dei gloriam!* Now suppose that, armed with the resources of such a system, and possessed at the same time of a highly quickened intelligence, of much real knowledge of men and things, of a firm and unbending will, of immense ambition to bring the bodies and minds of others under my power, proclaiming at the same time that in all that I was attempting my aim was the greater glory of God, do we not see at once that if I gave myself to teaching I must succeed? Is it not clear that almost all the ordinary difficulties which beset the teacher's path (such, for instance, as those of which Melanchthon complains) vanish when unconditional obedience is not only demanded but secured by treating disobedience even in thought as a sin to be manifested in confession and atoned for by penance; and when confession itself was made not an appearance but a reality by the Superior's antecedent knowledge, through delation or "informing" of all that the delinquent had to confess? With such a power, I say, over the inmost soul of my pupils I could command their attention and make every lesson effective. All this is what the Jesuit teachers not only theoretically talked of doing, but actually accomplished in their practice, and thus proved themselves to be, as I described them, relatively to their object, about the most successful teachers that the world has ever known. At least twenty-five years ago I bought at a stall a very interesting little book, written by Josephus Juvencius (Jouvency), a teacher of the Order, entitled *Ratio discendi et docendi*, the method of learning and teaching, and I gained from this book an insight into the Jesuit's notions of school instruction, which yielded me some profit as well as pleasure. I say instruction, not education, because this latter point is for the most part assumed as known. It is not in short a book of principles so much as of methods. I found, however one principle laid down in the second part (to which alone I am referring), which was to be a distinctive feature of the system. The pupils were to be moved to action more by the fear of disgrace than by that of punishment. Praise and blame, therefore, were to be the teacher's chief means of influence, and this because they foster "emulation, the whetstone of a boy's intellect, the spur to his industry." Emulation, indeed, was to be called on in many ways, to lighten the teacher's labour, and spare him "the hateful and troublesome necessity of punishing." It may be remarked by the way that the external discipline in these schools, though strict, was by no means severe. Severity, in fact, meaning by that term, harsh treatment, blows, ear-pulling, and was discountenanced generally as being, on the one hand, a rather bungling and doubtful means of enlisting the affections of children towards their teachers, and, on the other hand, as failing to gain that power over the inmost soul which was the object of Jesuit institutions. In fact, let it be once understood between us that you are or ought to be my absolute slave, my spiritual property, and I can then easily allow you a good deal of indulgence within the area covered by your tether. We are not then surprised to find that, to use Mr. Quick's words, many of those who received the Jesuit training "regarded for life their old masters with reverence and affection." From the kindly tone of Jouvency's book I have no doubt that he was thus regarded.

To return, however, to the principles of emulation, Jouvency mentions a few of the methods in which it may be stimulated, and he says there are hundreds of others. The boys of a class were to be so distributed that the one set was to have the task of taking up or tripping up the other. Whatever the first said (in translating or otherwise) was to be corrected at once if wrong, omissions supplied, improvement suggested. If a boy hesitated the other party were to be down upon him; if he stopped short they were at once to do the work for him. In every way they were to try to master him, and were allowed openly to show their delight in the victory. These combatants and rivals had also their turn of trial and defence. Then, again, one class challenged another to the combat *à outrance*, which was conducted in the same way. Sometimes the fight became a tournament, the lower part of the school was set to fight the higher; but now champions were selected on each side, and judges appointed, spectators both from the house and from outside invited, and among the latter some persons of distinction if that were possible. At another time some of the upper school boys would recite speeches or poems, and the lower school boys would be invited to listen, admire, or condemn, to applaud the speaker if they thought he deserved praise, or to launch an epigram at him, if they had wit enough to make one, or to puzzle him, if they could, with knotty questions.

Other plans intended to rouse the sluggish and careless are mentioned.* One was to take a faulty exercise, call public attention to it, and then appoint two or three clever boys to undertake a mock defence of the blunders. Sometimes a blunderer was sent out of the class and placed upon a sort of platform where he was to remain until by awakening of his wits he corrected some other, who was then to take his place of "bad eminence." In these ways and by the use of Books of Honour, and of Tablets of Honour placed on the walls, both containing the names of successful competitors, and by giving precedence out of school to honour boys, ambition was strongly excited, and general activity and interest in study promoted.

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* Quintilian also recommended plans like these.

The great object in these Jesuit schools, as it was in the Protestant schools, was to learn Latin and Greek, the former especially, as the boys were to write and speak it fluently; quite as much so as their mother tongue, the using of which was indeed rather discountenanced. The teaching was to be thorough. *The matter was only considered as taught when it was learnt, and only considered as learnt when it was known.* In these words I have condensed what seems to me the essence of their practice as teachers. They meant teaching. I have in my time known teachers who meant by teaching, hearing lessons, even giving lectures, but never seemed to comprehend this truth, that when the pupil has not learnt, so as to *know*, the teacher has not really *taught* him. When the Jesuit teacher said, "My pupil has learnt so and so," he meant that the pupil *knew* it. "Thorough," then, was the motto of the Jesuit teachers.

We know that *thorough* means *through*, and going through, as we know, means in the practice of some teachers and some learners *going through the subject and coming out at the other side without having really touched it.* So they go through page after page, book after book, and retain nothing. As the Jesuits' *through* meant *thorough*, their pupils were credited with having thoroughly learnt only that which they *knew*, *possessed*, and *retained.*

And one of the most important means for acquiring thoroughness is repetition. Their maxim was "*Repetitio Mater studiorum.*" It was a mother that took true care of her offspring. The Jesuits were firmly persuaded that, considering the nature of children, their fitfulness and volatility, thoroughness could only be gained by making them frequently retrace their steps, so as to get the imperfectfully known *thoroughly* known, and the thoroughly known *familiarly* known, and ready for application.

This is an important principle, and one too often neglected by teachers. They think it enough if their pupils know the thing, the subject, but forget that complete possession, mastery, involves more than this. To secure mastery there must be frequent repetition, by which alone the matter known must be made familiar to the mind, and its practical application provided for. Knowing is no doubt the essential basis, but knowing familiarly is the true object that the thorough teacher should have in view, and in order to this his method must be *regressive*, it must involve the learner's going back in his steps, and in the end he will find that this is the only way in which his instruction can be truly *progressive.* It looks fine to be hastening onward, but here, as in the business of life, shall we find "too much haste is bad speed." *Festina lente* is the maxim of the thorough teacher.

"Every lesson, therefore (as Mr. Quick says), was connected with two repetitions, one before it began, of preceding work, and the other at the close of the work just done. Besides this, one day a week was devoted entirely to repetition. In the three lowest classes the desire of laying a solid foundation even led to the second six months in the year being given to again going over the work of the first six months." Do not these look, pray, like the plans of men who meant to *succeed* in what they had undertaken, of men who, as I said before, meant teaching?

I have dwelt long on the Jesuits' principles and plans because I attach a high importance to them; I need hardly say I abominate their fundamental principle of corrupting, as I think, the mind in order to gain an unrighteous dominion over it, but I see even here the value to the teacher of thoroughly studying the character of his pupils, in order by means of this study to learn the best method of guiding them, and in their practice of teaching, their *ratio docendi.* I see the action of men who intend to succeed in what they attempt, and who co-ordinate the means with the end. Is nothing to be learnt by practical teachers from the methods of the Jesuits?

Here, however, we leave them and their teaching to pass over into our own country, and inquire what is contributed by our experience to the history of education. If time would permit, I should like to take up this part of my subject at an earlier period, and to show what was doing in the tenth century, for instance by Aelfric, who wrote an allegory to practise boys in speaking Latin, and in the twelfth century by Alexander Neckan, master of the Dunstable school, who wrote a treatise about utensils and tools of every kind; and in the thirteenth century by John de Garland, whose dictionary, as it is called, of the names of things employed by craftsmen of various kinds still survives; and by Walter de Bablesworth, who wrote a treatise in Anglo-Norman verse for the instruction of the expected children (who, however, never came) of the Lady Dionysia de Monchise. I should also, if we had had time, have gathered from Mr. Furnivall's interesting tract on "Education in Early England,"* particulars of what was meant by education in schools, or private houses, in the thirteenth and fourteenth centuries, and quoted Chaucer to show how the young gentleman, the squire of his time, was brought up in good manners;—

> Syngynge he was or flowtinge, al the day :
> He was as fresh as is the moneth of May.
> Schort was his goune, with sleeves long and wyde,
> Wel cowde he sit on hors, and faire ryde.
> He cowde songes wel make and endite,
> Justne and eek daunce, and wel purtraye and write.
> Curteys he was, lowly, and servisable,
> And carf byforn his fadur at the table.†

But, as I have said, I have no time for reference to these earlier times; I must therefore at once pass on to the education and instruction of English boys (and girls too) in the sixteenth century. In England, as in Germany, France, Italy, and Holland, at this time the curriculum was the same, being governed by the theory that all instruction worth the name consisted in learning Latin and Greek. The domination of the dead, but sceptred monarchs, who, as Byron says, still rule our spirits from their urns, was at that time firmly established, and has prevailed ever since. Their right so to rule I cannot now discuss. We shall presently see that it has been strongly contested from time to time, and at this moment is more questioned than ever before. In the sixteenth century it was generally allowed.

Assuming this theory, then, we have to ascertain how it was carried out. In looking over the road we have to travel, the first important fact that strikes us is the founding (about the year 1510) of St. Paul's School by Dean Colet.[12] This fact is important, because the new school was the first in England in which Greek became a regular part of the curriculum. This may perhaps have been partly due to the influence of Erasmus, who assisted Colet in arranging the plan of the school, and contributed somewhat, as I said before, to its literature. It is, however, probable that Colet, without any suggestion from Erasmus, would have introduced this

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* In the "Quarterly Journal of Education," 1867, Nos. II and III.

† Chaucer, "Prologue to the Canterbury Tales."—(*flowtinge* = playing the flute; *Justne* = joust, tilt; *purtraye* = draw; *carf* = carved.)

Vertue Sculp.

Effigies IOANNIS COLETI DECANI
S^t^ Pauli *qui obijt* 1519.

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study, for we know how he valued it. He was not a Greek scholar himself, or at least not a good one, though, like Grocyn, Linacre, Lily, and other famous Englishmen of the time, he had studied it in Italy. But in after years he laments his ignorance of the language. "Without Greek," he says, "we are nothing;" and he even speaks, in a letter to Erasmus, of becoming his pupil, and following the example of Cato, who learned Greek in his old age (Colet was then fifty).[13] However, Greek occupied only the second place in the curriculum of the new school, the first being naturally given to Latin. William Lily, a highly accomplished Latin and Greek scholar, was appointed by Colet the first head-master. Lily has the credit of having compiled the famous Latin Grammar (the old Eton Grammar) which bears his name. It seems that it was rather a work of joint authorship. The accidence was first drawn up by Colet himself; the syntax, compiled by Colet and revised by Lily, was finally corrected by Erasmus. Lily was the author of the well-known memorial lines beginning *As in præsenti*, and others, which were subsequently added.

I cannot now dwell upon the foundation of St. Paul's School, though an event of the highest moment in the history of education in England; I cannot tell you how wisely Colet selected and how liberally he remunerated his two masters; how generously he endowed the school with the greater part of his own fortune, which, partly by inheritance, partly from his Church preferments, was considerable; how he watched over his school during his lifetime, and after his death committed it to the charge of citizens and laymen (the Mercers' Company), as if distrustful of purely ecclesiastical rule. It would be interesting, too, to speak of Colet himself, a man of the purest and most elevated character, the friend of the wisest and best men of his age, among others of More and of Erasmus, in whose affectionate eulogies the virtues of his friend still live. But all this would lead us too far from our subject.

The matter, however, which just now interests us most in the founding of St. Paul's School is the opinion of its founder, a man of learning and of understanding, on the comparative importance, in the case of elementary pupils, of a knowledge of grammar as a means of learning Latin. It will be seen, from the words I am about to quote, that he expresses in substance the opinion I have given, that the facts of the language, learned at first hand by the pupils' own observations and investigations, are and ought to be the main objects of elementary study, and that the most valuable grammar for him is that which he makes for himself.

He says, in the introduction to Lily's Grammar, addressing the masters of the school: "If any man will know, and by that knowledge attain to understand Latin books, and to speak and to write clean [pure] Latin, let him, above all, busily learn and read good Latin authors and chosen poets and orators, and note wisely how they wrote and spake; and study always to follow them, *desiring none other rules but their examples.* For in the beginning men spake not Latin because such rules were made, but, contrariwise, because men spake such Latin: upon that followed the rules, and were made. That is to say, Latin speech was before the rules, and not the rules before the Latin speech. Wherefore, well-beloved masters and teachers of grammar, after the parts of speech are sufficiently known in our schools, read and expound plainly unto your scholers good authors, and show [in] every word and in every sentence what they shall note and observe, warning them busily to follow and do like, both in writing and speaking; and be as them your own self also, speaking with them the pure Latin very present, *and leave the rules:* for reading of good books, diligent information of learned masters, studious adventures, and taking heed of [by] learners, hearing eloquent men speak, and finally, busy [careful] imitation with tongue and pen, more availeth shortly to get the true eloquent speech *than all* the traditions, rules, and precepts of masters."[14]

Wolsey, who adopted Colet and Lily's Grammar for his new school at Ipswich, gave instructions to the same effect to his masters; and these agree, if you will remember, with the precepts of Erasmus on the same point. It would be easy to adduce the opinions of other distinguished men to show that the prominent place which even now, in our public schools, is given to mere technical grammar, as an end rather than as a means, was not allowed in England in the sixteenth century. The idea really entertained at that time was that the true end to be kept in view was something beyond grammar, viz., a thorough knowledge, to be gained by observation and thought, of the facts of the language—the form—and a thorough knowledge of the matter which that language embodied. It may suffice to prove the point to quote for you a passage or two from the work of Sir Thomas Elyot's, entitled the "Governour."[15] Sir Thomas Elyot was one of the most learned men of the first half of the sixteenth century. He compiled, among other works, a Latin Dictionary, which was much esteemed. The "Governour" is really a work on education, wherein he treats of the training of one who was to take a high place in state affairs.

"*For what cause at this daye there be in this realme fewe perfecte schole maysters.*

"Goode Lorde, how many good and clene wyttes of children be now a daies perished by ignoraunt schole maysters! Howe lyttell substancial doctryne is apprehended by the feweness of good grammariens! Notwithstanding I know that ther be some well lerned, whiche have taught, and also do teache, but God knoweth, a few, and they with small effect, havyng therto no comfort: their aptest and mooste propre scholers, after they be well instructed in speakyng Latine, and understandyng some poetes, being taken from theyr schole by theyr parentes, and eyther be brought to the courte, and made lakais or pages, or elles are bounden prentises, whereby the worshyp that the mayster, above anye rewarde, covayteth to have by the prayse of his scholer, is utterly drowned. Whereof I have hearde schole maysters very well lerned, of good right, complayne. But yet, as I said, the fewnesse of good grammariens is a great impediment of doctrine. And here I wolde the reders shuld marke that I note to be fewe good grammariens, and not none. I call not them grammariens, which only can teache or make rules, whereby a chylde shall only lerne to speake congrue Latine, or to make syxe verses standynge in one foote, wherin perchaunce shall be neither sentence nor eloquence. But I name hym a grammarien by the auctoritie of Quintilian, that spekyng Latine elegantly, can expounde good autors, expressing the invention and disposition of the matter, their style or fourme of eloquence, explycatyng the figures, as well of sentenses as wordes, levynge nothyng, person or place named by the autor, undeclared, or hydde from his scholers.

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"Undoubtedly there be in this realme many well lerned, which yf the name of a schole mayster were not so much had in contempte, and alsoo yf their labours with aboundant salaries moughte be requited, were ryghte sufficiente and able to induce theyr herers to excellent lernyng, so they be not plucked awai grene, and er they be in doctrine sufficiently rooted. But nowe a dayes, yf to a bachelar or mayster of arts, studie of philosophie waxeth tedious, yf he have a spone full of Latin, he wyll shewe forthe a hoggeshead, without anye learnyng, and offre to teache grammer, and expounde noble writers; and to be in the roume of a mayster, he will for a small salarie, sette a false colour of learning on propre wittes, whiche will bee washed away with one shoure of rayne. For yf the chyldren be absent frome schole, by the space of one moneth, the best learned of theim will unneth tell whether *FATO*, wherby Eneas was broughte in to Italy, were other a manne, a horse, a shyppe, or a wild goose! Althoughe their mayster wyll perchaunce avaunte hymselfe to be a good philosopher.

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"Some men peradventure do thynke, that at the begynnyng of learnyng, it forceth not althoughe the maysters have not soo exacte doctrine as I have rehersed, but lette them take good heede what Quintilian sayeth. It is soo muche the better to be instructed by them that are best learned, for as muche as it is difficultee to put out of the minde that whiche is ones settilled, the double bourden beyng peineful to the maysters that shal succede, and verily much more to unteache than to teache."

[*The Book named the Governour*, devised by Sir Thomas Elyot, Knyght. Londini, 1546; fol. 50*b*.]

LECTURE VI.

ASCHAM, MONTAIGNE, AND RATICH.

OUR history was brought down by the last lecture to the times of Roger Ascham. As neither Schmidt nor von Raumer have, I believe, given any account of the life or method of this eminent teacher—I cannot call him schoolmaster—it is important to dwell somewhat longer upon him than might have been otherwise necessary. Through the patronage of Sir Anthony Wingfield, in whose family he had been brought up as a fellow scholar with Sir Anthony's two sons up to the year 1534 (being then fifteen years old) he was sent to St. John's College, Cambridge. He took his Bachelor's degree at eighteen, and the Master's at twenty-one. He appears at this time to have become a proficient in Greek and Latin, and also in caligraphy. One of his occupations shortly afterwards was teaching Prince Edward, the Princess Elizabeth, and other distinguished pupils, the art of writing. Those who are curious to know how far he was successful may see specimens in the British Museum of the writing of Elizabeth and Edward when children, and I think every one will allow that they are beautiful. Three or four years after he was summoned to court to teach Elizabeth Greek. He found her a most apt pupil. She read with him portions of Demosthenes, Æschines, and many other authors, so completely comprehending, as he tells us, in one glance, not only the idiom of the language, and the sense of the orator, but the exact bearings of the cause, and the public facts, manners, and usages of the Athenians that it was marvellous to behold her. He tells us, moreover, what we might have hardly expected to hear, that she was modest, docile, and deferential to him as a teacher. He says, indeed, that he learned more from her than she from him. "I teach her words, and she teaches me things. I teach her the tongues to speak, and her modest and maidenly looks teach me works to do; for, he adds, she is the best disposed of any in Europe." The method he adopted was that of double translation which I shall afterwards explain. The result was, as he tells us in the "Schoolmaster," that :

"She attained to such perfect understanding in both the tongues, and to such a ready utterance in the Latin, and that with such a judgment, as they be few in number in both universities or elsewhere in England that be in both tongues comparable to Her Majesty." The intervals of study were occasionally relieved with chess. How often he ventured to give her checkmate we are not told, perhaps not many times, for though he was, we are told, an adept in chess, we may suppose him also an adept in courtesy, and many conquests might have been hazardous over one whom her brother Edward used playfully to call *Lady Temper.* Some time after this he became acquainted with Lady Jane Grey. The account of his leave-taking of her on one occasion is contained in a charming passage of the "Schoolmaster." It is too long to quote, but a few sentences I cull to show something of the domestic discipline to which young ladies, even of high rank, were subjected at that time. "One of the greatest benefits" she says, "God ever gave me is that he sent me so sharp and severe parents and so gentle a schoolmaster." (She refers here to Mr. afterwards Bishop Elmer). "For," she proceeds, "when I am in the presence of either father or mother, whether I speak, keep silence, sit, stand, or go, eat, drink, be merry, or sad, be sewing, playing, dancing, or doing anything else, I must do it, as it were, in such weight, number, and measure, even so perfectly as God made the world, or else I am so sharply taunted, so cruelly threatened, yea, sometimes with pinches, nips, and bobs, and other ways (which I will not name for the honour I bear them), so without measure misordered, that I think myself in hell till time come that I must go to Mr. Elmer, who teacheth me so gently, so pleasantly, with such fair allurements to learning, that I think all the time nothing while I am with him. And when I am called from him, I fall on weeping because whatever I do else beside learning, is full of grief, fear, and whole misliking unto me." Lady Jane, when Ascham called on her at Bradgate near Leicester to take his leave of her before he went on a state mission to Germany, was reading the Phædo of Plato in Greek.

This fact suggests to me a short digression to show something of the state of women's education at that time in England, especially in the higher ranks of society. I quote from a preface by Nicolas Udall, head-master of Eton School, to a translation of Erasmus's Paraphrase in St. John's Gospel, published in the reign of Edward VI. This translation was made by the Princess Mary, afterwards Queen Mary. "What a number," he says, "is there of noble women (especially in this realm of England, yea, and how many in the years of tender virginity, not only as well seen (*i.e.*, as intimately versed) and as familiarly traded (*i.e.*, grounded) in the Latin and Greek tongues as in their own mother-language; but also both in all kinds of profane literature and liberal arts exactly studied and exercised, and in the Holy Scriptures and theology so ripe that they are 'hable' aptly, cunningly, and with much grace either to endite or translate into the vulgar tongue, for the public instruction and edifying of the unlearned multitude. . . . It is now a common thing to see young virgins so 'nouzled' and trained in the study of letters that they willingly set all other vain pastimes at nought for learning's sake . . . England may never be 'hable' (as her deserts require) enough to praise and magnify the most noble, the most vertuous, the most witty, and the most studious, Lady Mary's Grace, daughter of the most virtuous King Henry the VIIIth, of most famous memory, and most dearly beloved sister to the King that now is; it may never be 'hable' (I say) enough to praise and magnify her Grace for taking such great study, pain, and travail, in translating this paraphrase of Erasmus upon the gospel of John, for your highness (the Queen Dowager Catherine's) special contemplation, as a number of right well learned men would have made credit by it, and also would have brought to worse frame in the doing." There is more to the same effect, but this will suffice to show that women three hundred years ago were not so ignorant and uneducated as is sometimes thought.

I need not say more of Ascham personally than that he died in 1568. Two years after his death the "Schoolmaster" was for the first time published by his widow. In this book he has fully explained his method of teaching Latin. In describing it, he quotes a passage from the younger Pliny in justification of it. In this passage Pliny speaks of the great advantage to the student of literature of turning Greek into Latin, and Latin into Greek, and tells us of the fruit, that the intelligence and judgment may gain from the close observation required for these exercises, especially the latter. Commenting on this passage, Ascham says, "Ye perceive how Pliny teacheth, that by this exercise of double translating is learned easily, sensibly, little by little, not only all the hard congruities of grammar, the choice of aptest words, the right framing of words and sentences, comeliness of figures, and forms fit for every matter, and proper for every tongue; but that which is greater also, in marking daily and following diligently thus the steps of the best authors, like invention of arguments, like order in disposition, like utterance in elocution, is easily gathered up; whereby your scholar shall be brought, not only to like eloquence, but also to all true understanding and right judgment, both for writing and speaking." These words of Ascham's set forth as you see the theory of his method. And now for the practice. As I have already very carefully described it, or rather given Ascham's own description of it, in the third of my lectures delivered here in the year 1871, I will read again what I then wrote, with such comments as may seem expedient.*

These are his own words, taken from the first book of the "Scholemaster":—

"After the childe hath learned the eight partes of speach, let him then learne the right joyning togither of substantives with adjectives, the nowne with the verb, the relative with the antecedent. And, in learninge further his syntaxis, by mine advice, he shall not use the common order in common scholes, for making of *Latines:* whereby the childe commonly learneth, first, an evill choice of wordes (and 'Right choice of wordes,' saith *Cæsar*, 'is the foundation of eloquence'); then a wrong placing of wordes; and, lastlie, an ill framing of the sentence, with a perverse judgment, both of wordes and sentences. These faultes, taking once roote in youth, be never, or hardlie, pluckt away in age. Moreover, there is no one thing that hath more, either dulled the wittes, or taken away the will of children from learninge, than the care they have to satisfie their masters in the making of *Latines.*"

* * * * *

"There is a waie, touched in the first book of *Cicero de Oratore*, which wiselie brought into scholes, truely taught, and constantly used, would not only take wholly away this butcherlie feare of making of *Latines*, but would also, with ease and pleasure, and in short time, as I know by good experience, worke a true choice and placing of wordes, a right ordering of sentences, an easy understanding of the tonge, a readinesse to speake, a facilitie to write, a true judgement, both of his owne and other men's doings, what tonge soever he doth use. The waie is this. After the three concordances learned, as I touched before, let the master read unto him the *Epistles of Cicero*, gathered togither and chosen out by *Sturmius*, for the capacitie of children.

"First let him teach the childe, cherefullie and plainlie, the cause and matter of the letter; then let him construe it into *Englishe* so oft as the child may easilie carrie awaie the understanding of it;

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* *See* Collected Works, vol. i, "On Educational Methods," p. 68, *et seq.*

lastlie, parse it over perfitlie. This done thus, let the childe, by and by, both construe and parse it over againe, so that it may appear that the childe doubteth in nothing that his master taughte him before. After this the childe must take a paper booke, and sitting in some place, where no man shall prompe him, by himself, let him translate into *Englishe* his former lesson. Then shewing it to his master, let the master take from him his Latin booke, and, pausing an hour at the least, then let the childe translate his own Englishe into Latine againe, in an other paper booke. When the childe bringeth it, turned into Latin, the master must compare it with Tullies booke, and laie them both togither; and where the childe doth well, either in chosing, or true placing of Tullies wordes, let the master praise him, and saie 'Here ye do well.' For, I assure you, there is no such whetstone, to sharpen a good witte, and encourage a will to learninge, as is praise.

"But if the childe misse, either in forgetting a worde, or in chaunging a good with a worse, or misordering the sentence, I would not have the master either frowne or chide with him, if the childe have done his diligence, and used no trowandship therein. For I know, by good experience, that a childe shall take more profit of two faultes gentlie warned of, than of four thinges rightlie hitte. For then the master shall have good occasion to saie unto him, Tullie would have used such a worde, not this; Tullie would have placed this worde here, not there: would have used this case, this number, this person, this degree, this gender; he would have used this moode, this tense, this simple, rather than this compound; this adverbe here, not there; he would have ended the sentence with this verbe, not with that nowne or participle, &c.

"In these few lines I have wrapped up the most tedious part of grammar, and also the ground of almost all the rules that are so busilie taught by the master, and so hardlie learned by the scholer, in all common scholes, which, after this sort, the master shall teache without all error, and the scholer shall learne without great paine, the master being led by so sure a guide, and the scholer being brought into so plaine and easy a waie. And therefore we do not contemne rules, but we gladly teache rules; and teache them more plainlie, sensiblie, and orderlie, than they be commonlie taught in common scholes. For when the master shall compare Tullies booke with his scholer's translation, let the master, at the first, lead and teach his scholer to joine the rules of his grammar booke with the examples of his present lesson, untill the scholer, by himselfe, be able to fetch out of his grammar every rule for every example, so as the grammar booke be ever in the scholer's hand, and also used of him as a dictionarie for every present use. This is a lively and perfite waie of teaching of rules, where the common waie, used in common scholes, to teach the grammar alone by itselfe, is tedious for the master, hard for the scholer, colde and uncomfortable for them both."[16]

We see in Ascham's method, that the concrete preceded the abstract; the particulars, the generalization; the examples of language, the grammatical rules. He was thus carrying out the spirit of the instructions given by Dean Colet and Cardinal Wolsey to the masters of their respective schools, which I quoted in the last lecture. There is another feature in this method of Ascham's worthy of careful notice, and that is *the close study of a small portion of literary matter, ending in a complete mastery of it.* To this point I have already directed your attention (see page 20).

It will be seen from these remarks that I attach great value to Ascham's method. It seems to me to be a particularly natural method. The pupil gains knowledge by observation, by noticing resemblances and differences, and by being thus brought continually in contact with facts—facts of language—is learning from them whatever they have to teach him, is therefore exercising his judgment upon them (practising induction, indeed), and preparing himself both for the independent evolution of principles, as well as for the intelligent appreciation of principles derived by others from the same materials. This I apprehend is true mental training, true culture of the observing, reflecting, and reasoning powers. In saying this remember I am giving no opinion as to the value of the end in view, *i.e.*, a literary as contrasted with a scientific education. I am simply assuming the end and considering the propriety and value of the means themselves, and thus considered, I cannot hesitate in expressing my opinion that Ascham's method is far superior in every way to the ordinary grammar-school method of our own days. One of the points necessarily involved in Ascham's method is imitation, by which he means, in short, working after a model. His notion generally is that, in language especially, which is a convention, we should first learn the conventional signs and forms of expression from one who is a master of them, some good author, and then employ these ourselves under similar circumstances. But by imitation Ascham meant not only this, but something more. He meant that the pupil, under the teacher's guidance, should endeavour to detect the author's art of composition and imitate that

Voicy du grand Montaigne vne entiere figure
Le Peinctre a peinct le corps et luy ſon bel esprit.
Le premier par ſon art egale la Nature
Mais laultre la ſurpaſſe en tout ce quil escrit

MICHEL DE MONTAIGNE.

1533–1592.

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when he wrote himself. In order to do this, he must study not only the matter, but the manner and spirit of the model. He must inquire, in presence of the author, why he used this word, and not that; why this form of expression, and not that; and further, what is the author aiming at, what are his arguments, what relation has this argument to that, and what connection have both with the end in view—what, in short, considering his object, are the means he employs for attaining it. The answer to such questions, when fully arrived at, involves the detection of the art of the author. When this art is completely comprehended by the pupil, he is to employ it himself in his own compositions. Imitation, therefore, as understood by Ascham, embraces the study both of the form or matter and the manner of the author, and the corresponding exercise work of the pupil in accordance with it—the analysis first, the synthesis after. All through these processes, it should be observed, the pupil is working in the presence of facts; these facts, indeed, and not the dogmata of the master, being his true teachers. Objections have been taken to this principle of imitation by persons who are afraid lest the originality of the pupil should be interfered with,—the originality, forsooth, of children learning a conventional thing like language. In a learner of language, considered as to its form, originality is a vice, not a virtue. In this sense, grammatical errors and bungling, unidiomatic expressions are original enough, but they are not generally commended on that account. It would be easy to follow out my argument, and show its application to style and the art of reasoning also, but I have not the time to spare. Many other points of Ascham's method I must leave untouched for the same reason.

MONTAIGNE.

It will have been concluded, from the data presented to you, that the general result of the revival of letters was to establish in all schools of public instruction, both in England and Germany, a curriculum of which Latin and Greek were almost the sole elements, and with this a method (excepting in the case of Ascham, and a few other teachers), of which the prevailing feature was the predominance of grammar. Towards the close, however, of the sixteenth century, Montaigne's voice among others was heard protesting against this narrow curriculum, and especially against the spirit which pervaded it.[17] "Speaking well," said Montaigne, "is, I do not deny, a very good and commendable faculty, but not so excellent as some would make it, and it vexes me that our whole life should be spent in nothing else. I would first understand my own language and that of my neighbour with whom most of my business and conversation lies. No doubt Greek and Latin are very great ornaments and of great use, but we buy them too dear." "A tutor should be a man of good natural parts, rather than one stuffed with knowledge; character and intelligence are more important than learning (though both are requisite); and he should perform his task in a new fashion. They [teachers] are continually bawling in our ears, like one pouring something into a funnel; while all we have to do is to repeat what has been said to us. Now I would have the tutor correct this, and that, at an early stage, he should, according to the capacity he has to deal with, put it to the test, permitting his pupil to taste and relish things, and of himself to choose and discern them, sometimes opening the way to him, and sometimes making him find it himself. That is, I would not have the tutor alone invent and speak, but that he should also hear his pupil speak in turn. Socrates, and since him Arcesilaus, made first their scholars speak, and then spoke to them. *The authority of those who teach is very often an impediment to those who desire to learn*" (Cicero). "Let the master not only examine his pupil about the grammatical construction, and the bare words of his lesson, but of the sense and meaning of them, and let him judge of the profit the child has made, not by the testimony of his memory, but by that of his understanding." "Let the teacher make his pupil examine and thoroughly sift everything he reads, and lodge nothing in his head upon simple authority, and on trust. For if he embrace the opinions of Xenophon and Plato, by maintaining this himself, they will no more be theirs, but become his own. He who merely follows another follows nothing, finds nothing, nay, is inquisitive after nothing, let him at least know that he knows." (Qu'il sache qu'il sait au moins). . . . "'Tis the understanding," says Epicharmus, "that sees and hears, that improves everything, that orders everything, that acts and rules. To know by rote is no knowledge (Savoir par cœur n'est pas savoir); it is simply to keep what one has entrusted to his memory. That which a man rightly knows and understands, he is the free disposer of at his own full liberty, without looking at his master, or fumbling over the leaves of his book." . . . "One might as well expect dancing-masters to teach us to cut capers by only seeing them do it without stirring from our places, as pretend to inform our understandings without setting them to work. One might as well expect us to learn to ride, handle a pike, play on the lute, or sing, without the trouble of practice, as attempt to make us judge and speak well without exercising us in judging and speaking." "I would have the youth's outward behaviour and mien and the disposition of his limbs formed at the same time with his mind. It is not a soul, it is not a body that we are training up, but a man and we ought not to divide him." "Words are merely to serve and follow a man's purpose. I would have things so exceed, and wholly fill the imagination of him who hears, that he should have something else to do than to think of words. That eloquence prejudices the subject it would advance which wholly attracts us to itself." . . . "Let your pupil be well furnished with things, words will follow only too readily; he will drag them along, if they refuse to follow. I know men who make the excuse of having no power of expression, and pretend that their heads are full of all sorts of fine things, but for want of eloquence they cannot bring them out. This is mere brag."

Montaigne would have action, and not the mere faculty of language, regarded as the end of education. He praises the training of the Spartan youth, who were taught by deeds, not words. "Compare," he says, "fifteen or sixteen years of such a training to that of our college Latinists who occupy the same amount of time simply in learning to talk. The world is nothing but babble, and I never meet a man who does not talk rather more than he ought, than less. Anyhow one-half of our life is used up in it. Four or five years are we kept learning words and joining them in phrases; as many more in fashioning grand periods with four or five divisions; another four at least in learning how to put them together concisely, and weave them in some marvellous fashion. Leave this to those whose avowed profession it is."

He would even have the doctrines of philosophy, as well as the language, taught to the young. "Why not," he says, "since philosophy is what teaches us how to live, and has a lesson for childhood as well as for other ages. We learn how to live when life is past." . . . "Our child has no time to lose. Fifteen or sixteen years of his life are all that the pedagogue can claim; the rest is assigned to action. Let us employ this time, short as it is, in teaching what is really necessary. Errors there are which we must correct; throw aside all those thorny subtleties of dialectic which can never mend our life. Take the plain lessons of philosophy; rightly chosen and treated they are more easily understood than one of Boccaccio's tales; a child when he leaves his nurse's arms can grasp them better than he can learn to read or write."

You will see that by philosophy Montaigne meant lessons of morality and prudence.

Like many of the Educational Reformers, of whom he was the pioneer, Montaigne discountenanced severe discipline, and especially corporal chastisement. "This education," he says, "must be regulated by a strict mildness (une severe doulceur), not as it is now. Instead of tempting children to their letters nothing is shown them but what is terrifying and cruel. Put aside, I say, violence and force. There is nothing, in my opinion, which so degrades and stupifies a naturally fine and noble disposition. If you wish your pupil to fear disgrace and punishment do not inure him to them. Inure him, if you like, to heat and cold, to wind and sun, and all the chances of life which he ought to despise. . . . Whether as a child or as an old man I have always thought the same of this matter. And this discipline in most of our colleges has always seemed wrong to me. A leaning towards indulgence might, perchance, be less injurious. It [a school] is truly a prison for the young captives; they are made criminals by punishing them before they are so. Go there when work is going on; you hear nothing but the cries of children suffering punishment, and of masters intoxicated with passion. What a way of awakening in these tender and timorous minds an appetite for learning, to lead them to it with a formidable cane, and whip in hand! Unrighteous and hurtful system!"

These unconnected passages which I quote from Montaigne's essay on the education of children, will give you a clear notion of his views on the subject generally. You will, I think, acknowledge their conformity in principle with those which I have brought before you and expounded to you from the commencement of these lectures. In the same essay of Montaigne's, he gives us an interesting account of the manner in which he learnt Latin. His father, he says, when he was quite a baby, committed him to the charge of a German who was wholly ignorant of French, but a master of Latin. This man, assisted by two other Germans similarly qualified, was the constant companion of the child, and spoke nothing but Latin to him; the same was done by his father, mother, and the servants to the best of their ability. The result was that before he was six years of age, without, as he says, art, book, grammar, or precept, without whipping or the expense of a tear, he had learned to speak Latin as correctly as his master, and, indeed, so thoroughly that the eminent masters he afterwards had, George Buchanan especially, often told him that he spoke so well that they were afraid to discourse with him. He adds that when he was sent to school he lost the habit of speaking pure Latin as well as all his interest in learning, and came away after seven years' teaching, having run through the whole course without any kind of improvement that he could brag of in all this time.

Montaigne was a theorist in education, not a practical teacher, but we see in his theoretical views the dawn of that light which will sooner or later shine brightly over the field of education; it is long coming, but it will assuredly come at last. May you, at least some of you, who have listened so long and so earnestly to my poor endeavours to clear away the clouds which still hang over the field, be ministers in the great work! It will not be done in my day.

RATICH.

Montaigne's words give the key-note of much that we shall find in the theories of Locke and Rousseau. Even in his own time there was one man who apparently by independent thought, aided by practice as a schoolmaster, realized in his method of teaching much that Montaigne had conceived and more that he had not. That man was Wolfgang Ratich, who was born in 1571, at Wilster, in Holstein, and pursued his early studies at Hamburg and Rostock. Into the particulars of his life I cannot further enter. What more concerns us is his theory of teaching, a theory which was in direct opposition to the formal grammatical instruction, the meaningless learning by heart, the mechanical discipline of his times, and which contemplated setting up in their places the recognition of the native powers of children, and the development of them by natural means, and especially by exercising them. This theory he endeavoured to realize in his practice; his principles, as stated by himself, were as follows. I beg your especial attention to them as illustrative of the new as opposed to the old notions respecting education. They are summarised in Mr. Quick's book, but I think it better to give them more at length from Schmidt and Von Raumer in order to show not only the principles but the reasons on which they are founded by their author.

1. *Everything after the order and course of Nature*, for everything unnatural, violent, and forced is hurtful both in teaching and learning, and in fact enfeebles Nature.

2. *One thing at a time*, for nothing hinders the exercise of the understanding more than the attempt to grasp many things at once. First, then, one thing is to be dealt with thoroughly, then you may advance to a second. Who would think of cooking together in one vessel pap, meat, milk, fish, so as to make one mess of them? In learning a language, then, to keep to one author. Out of one author you may learn the language (as afterwards said Jacotot).

3. *One thing again and again repeated*—What is often repeated is clearly and profoundly conceived by the understanding, for it is incredible what can be accomplished by the frequent repetition of one thing. Noticing a thing once or twice, leaving it and going to another, causes nothing to stick to the mind, which is consequently confused, drenched, and weakened—(*Repetitio mater studiorum*).

4. *Everything first in the mother tongue*—for there is this advantage in the use of the mother tongue that the learner can give his whole attention to the *matter* that he has to learn without troubling himself too much about the *words and expressions*. From the mother tongue then he proceeds to other tongues.

5. *Everything without coercion*—for through coercion and blows children learn to hate study. It is customary to beat children because they do not retain what they have been taught, but had the teacher taught them properly they would have retained it. As things are they suffer for the misdoing of their teachers, who have not employed the true art of teaching. The child is not to be afraid of his teacher but to love and honour him, and this is the case when the teacher does his duty properly. The work of instruction belongs to the teacher. If punishment for offences against morality is necessary it should be inflicted by the "Scholarch," an officer appointed for the purpose, so that the good understanding between the teacher and his pupils may not be interrupted.

6. *Nothing is to be learnt by rote*—for in learning by rote the attention is fixed on the words not on the ideas, but if a thing is thoroughly grasped by the understanding the memory retains it without further trouble. We must advance from the understanding to the memory, and not in the opposite direction. During the lesson, which is never to be more than an hour long, and to be followed at once by recreation, the pupils are to listen and be still. The teacher while the lesson is going on is to say nothing beyond his theme, and to ask no questions, in order not to hinder the pupils' thought. If he has any question to ask he must do it at the end of the lesson.

7. *Uniformity of plan in all things*—for this is a help to the understanding. Everything, therefore, was to be taught in the same way. Grammars of different languages were to be constructed on the same plan, and were only to differ where the idioms of the language differed. In this way what was common and what was special would not be confounded.

8. *First a thing in itself, afterwards the form or fashion of the thing*—for it is incongruous and absurd to inquire what the accidents of a thing are before you grasp the thing itself. Grammatical rules, then, are only to be given after you have given the matter on which they are founded, *i.e.*, the author—the language itself. Of what service would it be to a man who wished to learn a language to cram him with rules about it before he had heard or read a single sentence of it. He could not understand one of the rules until he came in presence of the facts. Rules without the matter confuse the understanding. The use of rules is to confirm previous knowledge and not to give knowledge.

9. *Everything through experimental analysis*—for bare authority is of no avail in the absence of cause and reason. Nor will even long usage and presciption suffice, for they bring no authority with them. No rules and no conception of teaching are admissible without fresh inquiry and thorough proof. The Baconian maxim—*per inductionem et experimentum omnia*—everything through induction and experiment, is to be ours.

These are Ratich's main principles. I have given them at some length, because with a few important modifications they represent the views of that band of educational innovators who now came into the field, and of whom Ratich is, as Von Raumer calls him, the Coryphæus (Choir leader). Among them we shall find as we go on the names of Comenius, Locke, Rousseau, Basedow, Pestalozzi, De Fellenberg, Fröbel, and Jacotot. It is to these men, who may be described as an *intellectual succession*, rather than a definite school, that Von Raumer has given the name of the Innovators, a name which it will be convenient to use always in this strict acceptation.

"I propose to call," says Von Raumer, "those who set up new principles and new ideals in pedagogy, Innovators (*Neuerer*). The name is not intended to imply either praise or blame, and for the moment it may be left an open question whether the new element which these men introduced was good or bad, or whether there was some evil mixed up with their good."

Their views, it is obvious, were in direct opposition to those of such men as Sturm, whose main object was to make boys masters of Ciceronian Latin, and who for this object sacrificed everything else, and to accomplish this purpose neglected the cultivation of all the mental powers except those required for learning languages. The reform thus demanded by the Innovators was radical and revolutionary. It affected first the methods, and then as a consequence the subjects of instruction, and aimed especially at making education a real development and training of the mind; while the development of the bodily powers was also put forward as an important object.

Like other movements of reform that of the Innovators was facilitated by the work of predecessors who had, more or less distinctly, aimed at similar changes. Erasmus had ridiculed, in his witty dialogue called *Ciceronianus*, as well as in some passages of the *Encomium Moriæ*, the affectation and pedantry of the scholars, and their servile imitation of the style of Cicero; but his sarcasms had had little effect. Bacon had vigorously attacked the traditional learning, founded, as it was, on reverence for authority, and had endeavoured to turn men from the study of words to that of things. But as he was not a teacher his principles did not influence practical education, till they had permeated the minds of Ratich and Comenius, the latter of whom was, as we shall see, an avowed follower of Bacon. Montaigne's pregnant thoughts could not, for the same reason, bear immediate fruit. The men we are now speaking of might, therefore, justly claim to have introduced new principles into the practice of teaching.

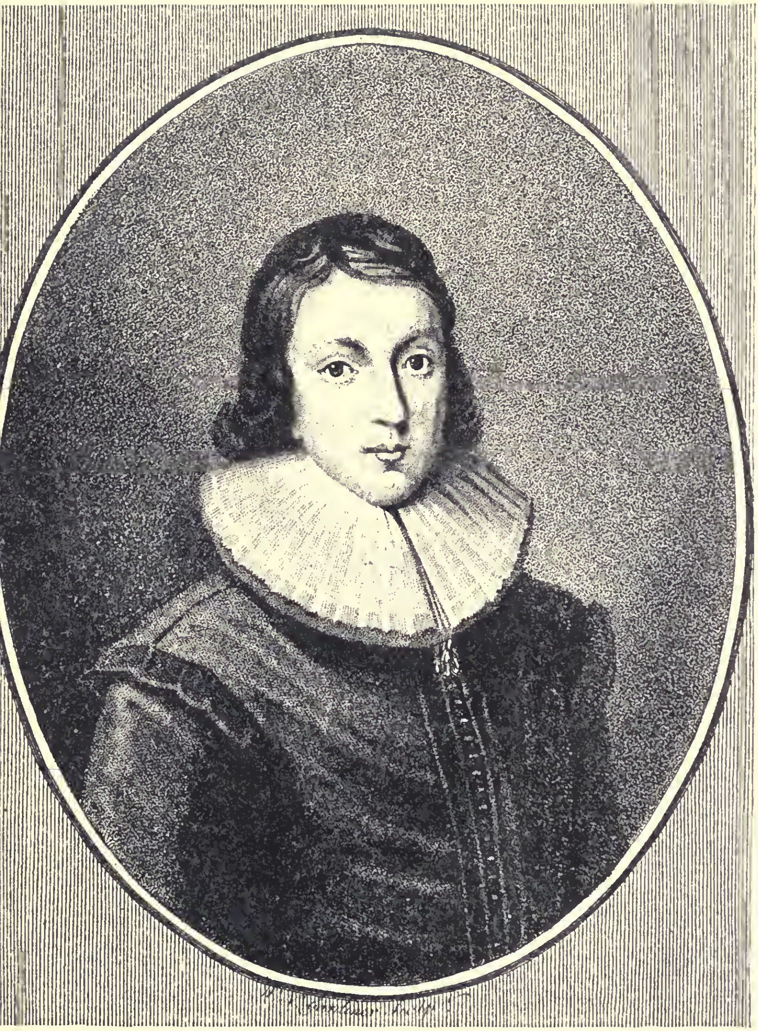
You will find, in the authorities I have named, some of the weak as well as the strong points of the Innovators brought out; and you may read of some of the objections which have been made to their principles. Here are some of these objections:—The Innovators made too sudden a breach with the past, unduly despising authority and tradition. Ratich took for the motto of his school books, "*Vetustas cessit; ratio vicit*" (Antiquity has given way; reason has conquered), as if there were a necessary antagonism between reason and antiquity. In correcting the errors of their predecessors they ran into the opposite extreme. They were far too sanguine in their expectations of the good which was to result from their reforms. They took too little account of the differences in the capacities of children, and expected the teacher to succeed equally well with all. "He should be able to carve a Mercury out of any kind of wood." They underrated the *receptive* faculty of children, which is the most natural to their age, and unduly stimulated the *productive* faculty. They sometimes lost sight of the ends of high liberal education, in leaning to utilitarian and material interests.

Of these objections you will see that some are such as have been brought against all reformers, of all subjects, in all ages; while others may be, in their place, well worth weighing and considering.

LECTURE VII.

MILTON, COMENIUS.

In stating Ratich's principles, and briefly giving his justification of them, I have represented (as already implied) the greater part of the theory held by the Innovators. At the same time, however, I ought to state two facts,—(1) that some of Ratich's notions were disowned by his followers, as for instance by Comenius; and (2) that Ratich with all his pretensions was not very successful as a schoolmaster. It appears to me, however, that this was rather his own fault than the fault of his method. He excited, and, I think, justly, prejudice against himself by making a mystery of his plans, and binding his teachers over to secrecy, and farther, by unseasonably obtruding his strong Lutheran opinions in a community for the most part strictly Calvinistic. The consequence was that his opponents at length succeeded in so working on the mind of Prince Lewis of Anhalt-Köthen, who had in the first instance patronised him, that they got him thrown into prison as an impostor. After a confinement of some months he was dismissed with a public declaration that he had promised what he was unable to perform. With the particulars of his life, however, we have no further concern, but it may be well to quote from Mr. Quick a practical illustration of his principle: "Everything first in the mother tongue." When his pupils (after much instruction in the mother tongue) advanced to the study of Latin, they were given a *translation* of a play of Terence, and worked over it several times before they were shown the Latin. [This was of course designed to make them well acquainted with the matter which they were to study.] The master then translated the play to them, with the Latin in view; each half hour's work twice over. At the next reading the master translated the first half hour, and the boys translated the same piece the second. Having thus got through the play, they began again, and only the boys translated. After this, there was a course of grammar which was applied to the text of Terence. Finally, the pupils were put through a course of



JOHN MILTON.

Aged 21.

exercises in which they had to turn into Latin sentences imitated from Terence, and differing from the original only in the number or person used. This plan differs, as you easily perceive, but little from that of Ascham; both confined the study in the first instance to the reading, and mastery by reading, of a single model book. Both construed *to* the pupil instead of requiring him to make out the sense for himself; both taught grammar, not independently, but in connection with the model book. I agree, however, with Mr. Quick in the opinion, that of the two, Ascham's was the better. Before proceeding to the next name on our list, I will give in Mr. Quick's words (derived from Von Raumer) a summary of the principles in which the Innovators were generally agreed: "(1) They proceed from the concrete to the abstract, giving some knowledge of the thing itself before the rules which refer to it. (2) They employ the student in analysing matter put before him, rather than in working synthetically according to precept. (3) They require the student to *teach himself* under the superintendence of the masters, rather than be taught (dogmatically) by the master and receive anything on the master's (sole) authority. (4) They rely on the interest excited in the pupil by the acquisition of knowledge and renounce coercion. (5) Only that which is understood is to be committed to memory."

MILTON.

I cannot, from want of time, give a full account of Milton's theoretical notions of education, as contained in his famous Tractate,[18] and in carrying out which he professed to "point out the right path of a virtuous and noble education, laborious, indeed, at the first ascent, but else so smooth, so green, so full of goodly prospect and melodious sounds on every side, that the harp of Orpheus was not more charming," and through which he hoped to draw away the English youths from "that asinine feast of sow-thistles and brambles which is commonly set before them, is all the food and entertainment of their tenderest and most docile age." There is, however, one striking passage which is well deserving your attention, and which I cannot well omit. "Because our understanding cannot in this body found itself but on sensible things, nor arrive so clearly to the knowledge of God and things insensible as by orderly conning over the visible and inferior creature, the same method is necessarily to be followed in all discreet teaching. And seeing every nation affords not experience and tradition enough for all kind of learning, therefore we are chiefly taught the languages of those people who have at any time been most industrious after wisdom; so that language is but the instrument conveying to us things useful to be known. And though a linguist should pride himself to have all the tongues that Babel cleft the world into, yet if he have not studied the solid things in them, as well as the words and lexicons, he were nothing so much to be esteemed a learned man as any yeoman or tradesman competently wise in his mother dialect only."

We see in this passage Milton's estimate of the comparative value of words and things about which so much has been said in these lectures. It is evident enough that Milton must be numbered with the Innovators, while it is also evident that he did not fully enter into their views. He did not in fact take into his consideration at all—he says so himself—the early education of children; he expected a boy to be at least twelve years old before he began to teach him.

In the time from twelve years old to twenty-one formal education was to be carried on, in an academy which should be at once school and university. The first study was to be Grammar (Latin, of course), and with this a distinct and clear pronunciation of Latin was to be enforced, as near as might be to the Italian, especially in the vowels. Next some easy and delightful book of Education was to be read to the pupils, "such as Cebes and Plutarch, and other Socratic discourses" are in Greek; though in Latin there is nothing of classic authority, except the first two or three books of Quintilian. At the same time, some other hour of the day, might be taught them the rules of Arithmetic, and soon after, "the elements of Geometry, even playing, as the old manner was." The next step would be to the authors in Agriculture—Cato, Varro, and Columella—who were to be read for their matter as well as for the sake of learning prose.

When Greek was learned so far as to overcome the difficulties of Grammar, the Natural History treatises of Aristotle and Theophrastus would be open to the student; and, in like manner, "Vitruvius, Seneca's natural questions, Mela, Celsus, Pliny, or Solinus." Having thus mastered the principles of Arithmetic, Geometry, Astronomy, and Geography (partly from modern writers), they might pass on to Trigonometry, and from thence to Fortification, Architecture, Engineering, or Navigation; and in Natural Philosophy and Natural History, as far as Anatomy; and even "some not tedious writer on the Institution of Physick" might be read to them. These scientific studies were to be aided by the helpful experiences of hunters, fishermen, shepherds, gardeners, apothecaries, architects, mariners, anatomists, and other skilled persons.

Thus far, Milton's scheme of education was, as you see, entirely concerned with natural knowledge (except that the evening of every day was to be given to religious teaching), and mainly founded on the classical scientific writers. The latter condition, for obvious reasons, impossible now, marks the wide gulf between the science of Milton's days and of our own. But education was not to be scientific only. At a more mature stage, ethical principles were to be inculcated by the moral works of Plato, Xenophon, Cicero, Plutarch, &c., corrected by the definite teaching of the sacred Scriptures. The study of Politics should follow, and then that of Law; the latter drawn from ancient sources, sacred and classical, and from the laws of England.

In the meantime, Italian might have been easily learnt at any odd hour, and "at a set hour the Hebrew tongue might have been gained, whereto it would be no impossibility to add the Chaldee and the Syrian dialect."

Literature was by no means to be neglected, but to be placed in the latter part of the course. First, "with wariness and good antidote, some choice comedies, Greek, Latin, or Italian;" last of all, "the choice histories, Heroic poems, and Attic tragedies of stateliest and most regal argument," together with the study of Rhetoric and Poetics.

Bodily exercises were to be regulated in such a way as to make the course of education equally good both for peace and war. Wrestling, the use of the weapon, and martial exercises on horse and foot, were to be combined so as to teach the whole art of war. The intervals of recreation were to be taken up with "the solemn and divine harmonies of music, heard or learnt;" and this theme is touched with an eloquence which is Milton's own.

I cannot quote more. Enough has been said to show that this sketch of an ideal training is, beside and beyond its realistic tendency, in every way characteristic of Milton's noble and lofty individuality. But if we had to put it to a practical proof we should probably find that the best criticism of so encyclopædic a scheme might be in its author's own words: "This is not a bow for every man to shoot in that counts himself a teacher; but will require sinews almost equal to those which Homer gave Ulysses." And the same parallel might occur for the sinews of the pupil as for those of the teacher.

COMENIUS.

Let us now give a little attention to the theory and practice of a man who as an educator would begin at the very beginning, with the mother herself, before the child's birth. This man was John Amos Comenius, a native of Moravia, born in 1592.[19] Into the highly interesting and singularly chequered life of Comenius, who was frequently called on to suffer for righteousness' sake, as a distinguished member, and ultimately Bishop, of the ancient Moravian Church, I cannot enter: our business with him concerns his work as an educator, a field in which he held a high and very honourable place. He published many treatises on the theory and practice of education, and his fame was at one time so great that he was summoned by various governments of Europe, especially by that of Sweden and that of England (by the Parliament) to visit their respective countries, and give his advice and practical assistance in the improvement of education. The Parliament in England proposed by his aid, under the direction of a commission of wise and learned men, to found a Universal College of all nations, such as had been devised by Bacon, to be devoted solely to the advancement of the sciences. The critical state of political affairs at that time (1641–42) effectually hindered the realization, and even the full consideration of this plan, and Comenius returned to the Continent without having accomplished anything in England except improving his acquaintance with Samuel Hartlib and other (to use a disagreeable but necessary word) educationists of the time. But now as to his educational notions and methods. It is evident that he owed much to Ratich, whose books he read, and with whom he endeavoured to enter into correspondence. He complains, however, that Ratich never answered his letter. There seems to me to be a little pique and jealousy in his judgment of Ratich, whose general principles seem to coincide on most points with those of Comenius. You shall, however, form an opinion yourselves on this point. These are some of the leading principles of Comenius. I give them mainly, as quoted by Mr. Quick, from the *Didactica Magna*.

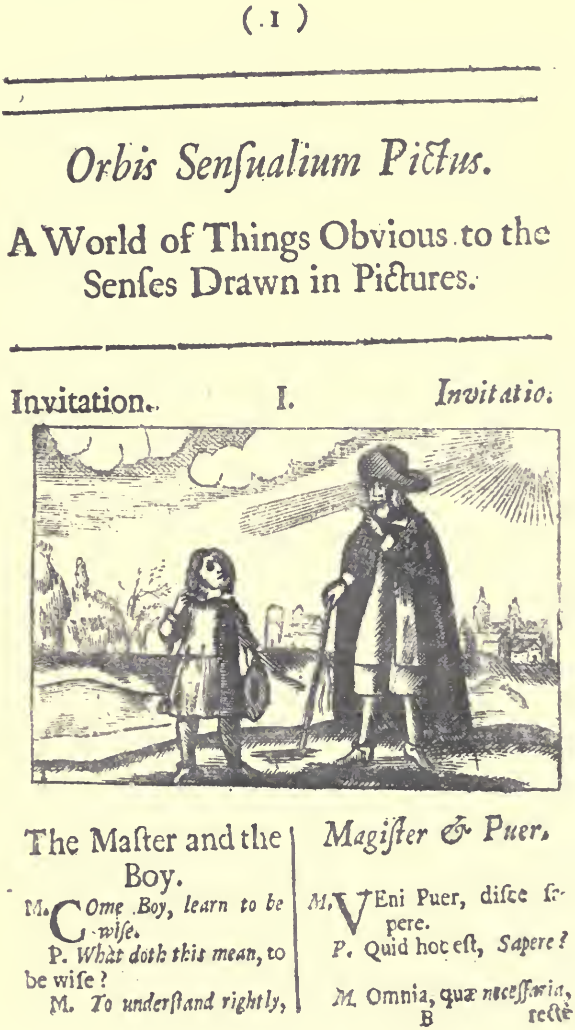
A true system of education should follow Nature; everything natural goes smoothly and easily. There must therefore be no pressure; learning should come to children as swimming to fishes, running to animals. We must therefore examine the known processes of nature and art to see what takes place. A man sows seed,

IOHAN- AMOS COMENIVS,
MORAUVS A°. Æ TAT 50: 1642.
T. Cross sculpsit

and it comes up he knows not how; but in sowing it he must attend to the requirements of Nature. We find that Nature waits for the fit time for sowing: then, too, she has prepared the material before she gives it form. In our teaching we constantly run counter to these principles of hers; we give instruction before the young minds are ready to receive it, we give the form before the material, words are taught before the things to which they refer. Abstract rules should never come before the examples; children should learn not words merely, but objects together with words; the thing is the body, the word is the body's dress; we should learn as much as possible, not from books, but from the great book of Nature, from heaven and earth, from oaks and beeches. It is not the memory only that requires cultivation, but also the reasoning faculties, the will and the affections, and this should be done from early infancy. In Nature the crude form, the general representation, comes first, then the elaboration of the parts. In teaching, then, let the understanding of the subject come first, then let the thing understood be used to exercise the memory, the speech, and the hands (*i.e.* in writing). Let every language, science, and art, be taught first in its rudimentary outline, then more completely with examples and rules, finally with exceptions and anomalies. We see from this passage that Comenius and Montaigne, and Rousseau afterwards, and a host of others, are all one as to word-teaching, and, as Mr. Quick remarks, Comenius, by laying stress on thing-teaching, was the forerunner of Pestalozzi.

Education should proceed in the following order: first educate the senses, then the memory, then the intellect, last of all the critical faculty. This is the order of Nature; the child first perceives through the senses, *nihil est in intellectu quod non prius fuit in sensu.* By comparing one perception with another, the understanding forms general ideas between the false and the true. These are the leading notions, I believe, which Comenius puts forth in his work. At the first glance they do not seem to differ much from Ratich's; the essential difference, however, is this, that Comenius's principles go down to the foundation, while Ratich's do not. Ratich takes cognisance of the child as he happens to find him, at any age or stage, while Comenius begins at the very beginning, and deals with the earliest development of will, feeling, and intellect. This difference is truly distinctive, and places Comenius in the position of educational father of Pestalozzi and Fröbel, and in a certain sense of myself, who claim to have been the first to connect or desire to connect pre-observation of the phenomena of baby life with the positive principles of the science of education, and to found upon these principles the art of education.

Comenius wrote many books relating to practical teaching. I shall, however, call your attention only to one, which made for itself an immense reputation, the famous "Orbis Pictus," a copy of which is now before me.



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Orbis Senſualium Pictus.

A World of Things Obvious to the Senſes Drawn in Pictures.

Invitation. I. *Invitatio.*

The Maſter and the Boy.	*Magiſter & Puer.*
M. Come Boy, *learn to be wiſe.*	*M.* Veni Puer, diſce ſa- pere.
P. *What doth this mean, to* be wiſe?	*P.* Quid hoc eſt, *Sapere?*
M. *To underſtand rightly,*	*M.* Omnia, quæ *neceſſaria,* recte

B

The object the author had in view was to teach Latin in a new way, discarding altogether Ratich's and Ascham's notion of studying the language in some good author, and working his text as a model. It brings together in groups, by means of short Latin sentences, with a translation in view, all the principal words connected with the subject of each group.

This book came into being in the following way: A certain Jesuit of the Irish College at Salamanca, in Spain, had published, about the beginning of the seventeenth century, a book for teaching Latin, entitled *Janua Linguarum* ("The Gate of Languages"), a book intended to supersede the study of classical authors by artfully bringing together in successive chapters all the principal words of the language. This was effected by making each chapter describe some special subject, as *de terrâ*, of the earth; *de fruticibus*, of shrubs; *de morbis*, of diseases; *de coquinariâ*, of cookery; and a translation on the opposite page gave the meaning of the Latin. The author by thus passing from subject to subject brought together, as you see, in groups the various words belonging to each; and he boasted that by this management he comprised in one book without repetition all the principal words and a large number of the phrases of this language. If, therefore, you thoroughly knew this one book, you knew the Latin language. This notion was obviously in direct opposition to that of Ratich and Ascham, who recommended the study of an approved classical author, in the first instance, who was to be followed by others, thus enabling the learner gradually to pick up the vocabulary and phraseology.

There are two principles of some importance involved in the plan of the *Janua Linguarum*, that of passing from things to words, and that of association of ideas. When I mention the word "cooking," for instance, and ask you to dwell upon it for a moment, it suggests to you the kitchen, the cook, the fire, the spit, cauldron, gridiron, frying-pan, &c., and the processes of boiling, roasting, frying, &c. You know these things and are therefore prepared to receive their Latin names, and when they are connected together by a short description which you thoroughly comprehend, the principles of association will tend to hold them together in the memory. Comenius met with this book and was so pleased with it, that he immediately applied it to his own language and introduced the new book under the title of *Janua Linguarum Reserata* ("the Gate of languages unlocked") into his schools. It soon became known all over Europe, and in England was translated by Thomas Horn, and subsequently re-edited by John Robotham, whose work I have here, dated 1673. One of the previous editors had conceived the idea of adding what he calls a foundation to the plan. This foundation consists of a number of detached sentences into which are most oddly crammed together the chief, as he says, of the Latin primitives; which, if they be well digested, the derivatives and compounds will easily follow.

The digestion, one would think, must have been considerably stronger than an ostrich's which could assimilate such matter as the following :—

Pannus *corticibus* in *cortinâ* tinctus magis *coruscat* quam *corvus corylis* pastus, which is thus Englished: "The cloth being dyed with the rinds of trees in the dyer's vat, doth shine more than the raven that eats hazel nuts." Or this: *Cribro* aquam haurit qui *crimen* objicit *crinem crispum* in *cristâ* gestanti, *i.e.*: "He draws water with a sieve that objects a fault to one that wears frizzled hair on his cockscomb." It seems strange enough that any one should have conceived that such a mess as this was suitable for the digestion of little boys, and stranger still that it should have been thought to be a proper part of a natural system of teaching. Turning, however, to the body of the book, I give you a short specimen of the matter placed under the head of *De Coquinaria* ("of cookery") This is the first sentence of the Latin :—

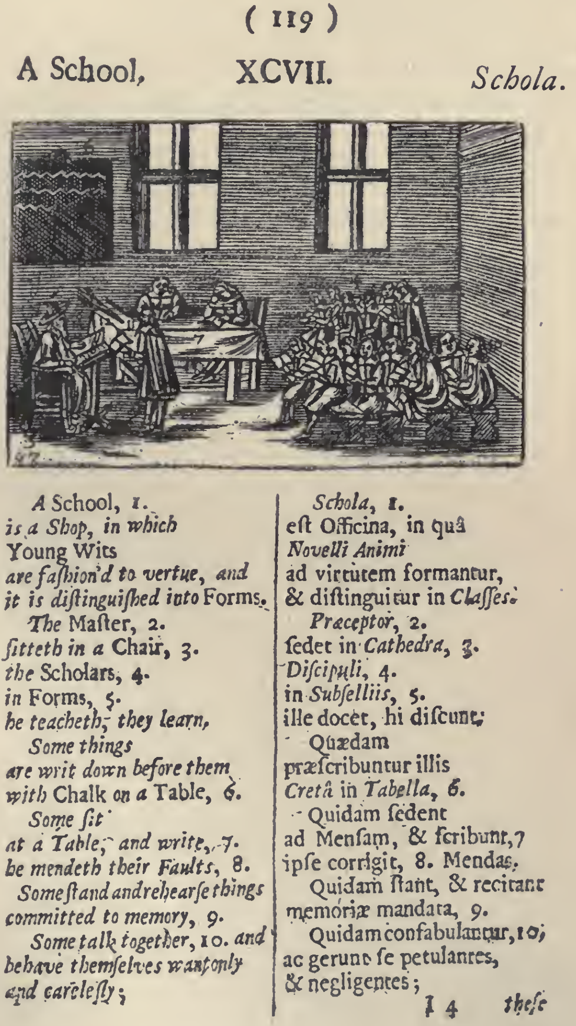
Obsonator opsonia cöemit quæ (tam recentia quam pridiana et semesa) promus, condus e promptuario, penario vel carnario profert. Coquus vel coqua in foco, lebetibus ahenis et cacabis elixat; verubus infixa assat craticulâ vel artoptâ torret, sartagine frigit."

This is the English :—

The caterer buyeth in provision which (as well what is new as what was of the day before and half eaten) the yeoman of the larder brings forth out of the storehouse, pantry, or larder. The cook on the hearth boileth it in cauldrons, pans, brass pots and kettles, roasteth it, being spitted on spits, broileth it on a gridiron, toasteth it in a toasting oven, fryeth in a frying pan.

So much for the *Janua Linguarum Reserata*. After this book had been in use all over Europe for a number of years, Comenius conceived the happy idea of prefixing to every chapter a little picture representing all the objects described in it. The book now became increasingly popular under the title of "Orbis Pictus," the "Visible World." I have here a copy of the twelfth edition of it, dated 1777, and edited by Charles Hoole, an eminent schoolmaster of the seventeenth century. I will describe the picture at the head of "De Schola." [20]

After many years the book fell into disuse. Whether it was ever introduced into the great public schools I do not know. The idea of it after all is not bad; such a book used as a vocabulary in connection with the study of classical authors might still be valuable.



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A School, XCVII. *Schola.*

A School, 1.	*Schola*, 1.
is a Shop, in which	eſt Officina, in quâ
Young Wits	*Novelli Animi*
are faſhion'd to vertue, and	ad virtutem formantur,
it is diſtinguiſhed into Forms.	& diſtinguitur in *Claſſes.*
The Maſter, 2.	*Præceptor*, 2.
ſitteth in a Chair, 3.	ſedet in *Cathedra*, 3.
the Scholars, 4.	*Diſcipuli*, 4.
in Forms, 5.	in *Subſelliis*, 5.
he teacheth; they learn,	ille docet, hi diſcunt;
Some things	Quædam
are writ down before them	præſcribuntur illis
with Chalk *on a* Table, 6.	*Cretâ* in *Tabella*, 6.
Some ſit	Quidam ſedent
at a Table, and write, 7.	ad Menſam, & ſcribunt, 7
he mendeth their Faults, 8.	ipſe corrigit, 8. Mendas.
Some ſtand and rehearſe things	Quidam ſtant, & recitant
committed to memory, 9.	memoriæ mandata, 9.
Some talk together, 10. *and*	Quidam confabulantur, 10;
behave themſelves wantonly	ac gerunt ſe petulantes,
and careleſly;	& negligentes;

I 4 *theſe*

I have not time to criticise as I should like to do the "Janua" and "Orbis Pictus;" I must content myself with saying that the principle of laboriously gathering together and classifying matter of whatever kind and cramming children's (young children's) minds with it thus prepared for them, runs directly counter to that which I have endeavoured in former lectures to make clear to you, viz., that the child is to be treated from the beginning as an observant first-hand investigator, using his own powers under direction for the discovery of truth. All these "Januæ," however ingenious, are doors slammed in the face of, not ready to receive, pupils of this kind. If the work of observation and investigation is done *for* the pupil, you so far repress his desires and power to observe and examine for himself. It should never be forgotten, to use Burke's words, that the main business of a teacher is not to serve up to his pupils barren and lifeless truths plucked off for him from the vital stock, but to lead him to the tree and assist him in gathering for himself. It is in this way that the child gains power by the exercise of his whole mind. But I have often insisted on this view of the case.

LECTURE VIII.

LOCKE, ROUSSEAU, BASEDOW.

THE next name on our list is that of Locke, the essence of whose theory of education is *Mens sana in corpore sano.* I shall not dwell upon Locke, not that I undervalue what he so carefully wrote, but that I consider that it was for the most part a repetition of what had been already said, and, moreover, the object he had in view—the bringing up and instructing of a gentleman's son, though every way important in itself—specialises his treatment of education generally. There is not much that is really philosophical or quickening in "Some Thoughts on Education." It is not nearly so quickening or so original as Montaigne's Essay, while it is, in my opinion, immensely below Rousseau's "Émile" in suggestiveness. It is an eminently sensible book, and every teacher ought certainly to read it, though I think that a teacher bent on understanding education on its principles would learn more from the treatise on the Conduct of the Understanding, and from some parts of the Essay concerning Human Understanding, than from "Thoughts on Education." Some of his notions about physical education, especially as to the *hardening* of children by giving them very little clothing and very little food, and that at irregular times, and making them go about in wet weather in boots with holes in them, have ended, as Herbert Spencer says, in hardening many of them out of the world.[21]

Locke's books contain many valuable remarks on discipline, agreeing almost altogether with Montaigne and Comenius, but he fails to bring out the fundamental doctrine recently expounded to us by Mr. Lake, that the efficient wielding of discipline by the teacher essentially depends on his knowledge of the science of ethology—the science of character-training and -forming. Armed with the principles of this science, the educator is an artist, prepared with resources to meet difficulties already foreseen, and emergencies not foreseen. Without these principles he works at hap-hazard, and, therefore, often unskilfully and injuriously to the interests of his pupils. A vast number of the faults of children are faults directly or indirectly induced by the teacher's ignorance of the principles of his art, and for which he, not they, ought to be blamed (I have here entered, however, upon a large field but must stop at the very entrance). Locke's opinions, I repeat, on this and on most of the subjects he treats, are very sensible and also generally commonplace. The master-hand which shall co-ordinate the principles of discipline from the educator's side instead of the child's, has not yet appeared, though Mr. Mill has furnished us with valuable suggestions. That master-hand, however, must belong to a man who has had many years' experience of children themselves, in all their various moods and manifestations, and must not be that of a philosopher speculating on the subject in his study; —though he, too, must be a philosopher.

The golden little book on the Conduct of the Understanding, and very much of the Essay concerning Human Understanding, must be recommended "to all teachers who wish" (to use Locke's own words) "to consider the discerning faculties of man, as they are employed about the objects which they have to do with." If this is not a matter in which teachers are concerned, whose very business is to direct the discerning faculties of children, I do not know what is. As we have been lately talking of Montaigne's notion of memory, I will quote from Locke's Essay a passage notable for its beauty, which refers to the same subject: "There seems to be a constant decay of all our ideas, even those which are struck deepest and in minds the most retentive, so that if they be not sometimes renewed by repeated exercise of the senses, or reflection on those kinds of objects which at first occasioned them, the print wears out, and at last there remains nothing to be seen. Thus the ideas as well as the children of our youth often die before us, and our minds represent to us [*i.e.*, are like] those tombs to which we are approaching, where, though the brass and marble remain, yet the inscriptions are effaced by time and the imagery moulders away."*

Locke's method, as it has been called, of interlinear translation I shall consider in connection with Hamilton's and other methods of teaching languages.†

JEAN JACQUES ROUSSEAU.[22]

(1712—1778.)

We now arrive at Rousseau, whose "Émile" I agree with Mr. Quick in considering "perhaps the most influential book ever written

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* Essay concerning Human Understanding, Book II, cap. 10, § 5.

† See Lecture XII.

Tombeau de J.J. Rousseau a Ermenoville
ou il a ete depose le 4 Juillet 1778 age de 66 ans.

INK-PHOTO, SPRAGUE & Co LONDON.

Joh. Balzer sc.

on the subject of education." He was, to be sure, a speculator, but most of his speculations have become realities in the methods of Pestalozzi and his school, including Fröbel. The main secret of his influence is the intense vividness of his conceptions of the real work to be done, and the extraordinary power with which he brings his conceptions to light. As Mr. Morley has recently said, "While others were content with the mere enunciation of maxims and precepts, he breathed into them the spirit of life, and enforced them with a vividness of faith that clothed education with the augustness and unction of religion."—(Rousseau ii, 194.)

This judgment is true. The "Émile" is a truly wonderful book on education, in the fullest sense of the term—a book which contains more absurdities, more paradoxes, more crudities on the subject than any other book of the kind, but at the same time more living and speaking truths regarding education, and a deeper insight into the capabilities and activities of the human mind, and of the resources of the art by which they may be developed and trained, than any book that I know. In reading the "Émile" we are by turns charmed and revolted, enchanted and disenchanted, while approving the end he aims at, dissatisfied with the means he employs to attain it, yet we come at last, in spite of all the difficulties, which he by his very extravagance interposes, to the conclusion—This man knows human nature!—and to the further conclusion—one of profound importance—that efficient education is the eliciting through means suggested by a knowledge of human nature of the latent powers, physical, intellectual, and moral, of the being to be educated. And let me add, though I have said it before, that the man or woman who employs these means with conscious knowledge of the principles on which they are founded, is an *artist* in education; those who have not this knowledge are but *artisans*, often no doubt very clever workmen, and turning out showy specimens of their ability, but specimens which when examined are found to be veneered and varnished, hiding rather than revealing the natural grain of the wood. These remarks, though, perhaps, apparently irrelevant, really have a direct bearing upon our object. It was Rousseau's express design to make the educator an artist, and his work is a protest against the inartistic, haphazard, aimless procedure followed by the educators of his time, and, I may add, of our time also.

"Émile" is strictly an educational book, but not a formal treatise. It professes to have been written for the use of a lady desirous of advice in the education of her children. It describes the system by which its imaginary hero, Émile, was brought up, not only from the cradle till he reached manhood, but even a little longer: for the story carries him on into married life, and speaks of the education of his wife, Sophie. It was published in 1762, and excited widespread interest, but at the same time brought upon its author severe condemnation. The Parliament of Paris ordered the book to be burnt, and condemned Rousseau to imprisonment and confiscation of his goods, a sentence which he had foreseen, and evaded by leaving French territory. The authorities of Geneva pronounced a similar sentence against the book, and the Government of the Canton Bern expelled the author from their territory. Lastly, the Archbishop of Paris published a solemn decree of condemnation against the book called "Émile." These severe measures were not aimed so much at the educational principles of the book as against a certain episode of sceptical tendency, called the "Confession de Foi d'un Vicaire Savoyard," with which we have here nothing to do.

I shall not attempt to go over all the field traversed by Rousseau, but content myself with quoting such remarks as characteristically connect him with the Innovators who preceded, and with Pestalozzi, Basedow, Fröbel, and De Fellenberg, who followed him.

"We are born feeble, we have need of strength, we are born destitute of everything, we have need of assistance, we are born stupid, we have need of judgment. Whatever we have not at our birth, and which we require when grown up, is bestowed on us by education. This education we receive from nature, from men, and from things. The internal development of our organs and faculties is the education of nature. The use we are taught to make of these developments is the education given to us by men, and in the acquisitions made by our own experience or the objects around us consists our education from things."

[I may remark in passing that the better order would be (1) education by means of things; through (2) that of nature; and (3) that derived from the action of men.]

"Since the concurrence of these three kinds of ideas is necessary to their perfection, it is by that one which is entirely independent of us, *i.e.*, that of nature, that we must regulate the two others."

"The teacher's province is less to instruct than to guide. He must not lay down precepts, but teach his pupil to discover them. I preach a difficult art—the art of guiding without precepts—and of doing everything by doing nothing.

"But social circumstances, the demands of actual life, enter on the scene. What is the educator to do? Let my pupil be destined for the Army, the Church, or the Bar, that is no concern of mine, Nature's call is louder than that of the parent. Nature calls him to human life. What I have to do is to teach him how to live as a man.

"To live is not merely to breathe; it is to act, to make use of our organs, of our senses, of our faculties, of all those parts of ourselves which give us the feeling of our existence.

"True education consists less in precepts than in exercises. We began to teach ourselves as soon as we began to live, our education commences with ourselves." [Compare Montaigne.]

"People do not understand children. With the false notions we have on the matter the farther we go the more we blunder. Even the wisest men apply themselves to what is important for *men* to know, without considering what *children* are in a condition to learn. They are always seeking the *man* in the *child* without reflecting what he is before he can be a man. Begin, then, by studying your pupils better, for most assuredly you do not understand them. Read my book, then, with this object in view; I do not think it will be useless to you.

"Nature requires children to be children before they are men. If by our principle we *will* prevent this order, we shall produce precocious fruits having neither ripeness nor taste, and sure soon to be rotten. We shall have young doctors and old children. Childhood has its own way of seeing, thinking, and feeling. Nothing is more absurd than trying to substitute our views for theirs.

"We never know how to put ourselves in the *place* of children. We do not enter into their ideas, we lend them our own, and following always our own train of thought, we fill their heads even while we are discussing incontestable truths, with extravagance and error." I wish some judicious man could give us a treatise on the art of observing children, an art of the greatest importance to understand, though fathers and teachers know not as yet even the elements of it." [Fröbel has done this.]

(These remarks of Rousseau's bear upon two important principles—(1) that to teach children wisely and efficiently we must know child nature; and (2) that without such knowledge we cannot really sympathise with that nature).

"The child is to develop his powers freely. No bandages, no swaddling clothes, no garotting, no pent up crib or cradle. Let him have a large, properly guarded mattress, to which air and light can have access to exercise his limbs upon without restraint.

"The education of man begins at his birth, before he can speak or understand anything he is already teaching himself. Experience goes before lessons. As soon as he knows his nurse he has already learnt much.

"As soon as a child begins to distinguish objects, a proper choice should be made in those which are presented to him. While memory and imagination are as yet inactive, the child attends only to that which affects his senses. He wishes to touch, to handle everything. Do not oppose this restlessness. It suggests to him a necessary apprenticeship in learning. It is in this way he learns to feel heat and cold, the hardness, softness, and weight of bodies, to judge of their magnitude, form, and all their other sensible qualities, by looking, touching, hearing, and particularly by comparing the sight with the touch, and by judging, with the eye, of the sensation conveyed to the fingers. Of all our faculties the senses are perfected the first; these, therefore, are the first we should cultivate: they are, nevertheless, the only ones which are usually forgotten or the most neglected. It is the right or wrong cultivation of this inquisitive disposition that makes children stupid or expert, sprightly or dull, sensible or foolish. The primary impulses of man urge him to measure his forces with those of the objects around him, and to discover the sensible qualities of such objects as far as they relate to him; his first study is a sort of experimental philosophy in relation to his own self-preservation, from which it is the custom to divert him by speculative studies before he has found his place on this earth. During the time that his supple and delicate organs can adjust themselves to the bodies on which they should act, while his senses are as yet exempt from illusions, this is the time to exercise both the one and the other in their proper functions, and to learn the sensuous relations which things have with us. As everything that enters the human understanding is introduced by the senses, the first reason in man is a sensitive reason, and this it is which serves as the basis of his intellectual reason. Our first instructors in philosophy are our feet, hands, and eyes. Substituting books for all this is not teaching us to reason, but teaching us to use the reason of others; it is teaching us to believe a great deal, and never to *know* anything. To learn to think, therefore, we should exercise our limbs, our senses, and our organs, since these are the instruments of our intelligence; and in order to make the best use of these instruments, it is necessary that the body which provides them should be robust and healthy. Thus so far is a sound understanding from being independent of the body, that it is owing to a good constitution that the operations of the mind are effected with ease and certainty." To exercise the senses is not merely to make use of them, it is to learn rightly to judge by them—to learn, so to speak, *how to feel*, for we know how to touch, to see, to hear only as we have learned. Exercise, therefore, not only the physical strength, but also the senses that direct it, make the best possible use of each, and verify the impressions of one by those of another. Measure, reckon, weigh, compare.

To the same effect, he says: "Are you desirous of cultivating the understanding of your pupil, cultivate those abilities on which it depends. Make him robust and healthy in order to make him reasonable and wise. Direct the attention of your pupil to the phenomena of nature, and you will soon awaken his curiosity, but to keep that curiosity alive you must be in no haste to satisfy it. Put questions to him adapted to his capacity, and leave *him to solve them.* He is not to know anything because you have told it to him, but because he has himself comprehended it; he should not learn but discover science."

Rousseau, you see, does not recommend telling and explaining: he wishes the pupil to be his own teacher.

"I do not at all admire studied explanations; young people give little attention to them and never retain them in their memory. Things! Things, I say. I can never repeat it enough that we make words of too much consequence, with our prating modes of education we make nothing but praters."

He often insists on the doctrine at which we arrived in the first course of lectures, that the learner is to be a self-teacher. He says most impressively:

"When forced to learn by himself the pupil makes use of his own reason, and not that of others. From this continual exercise of the understanding will result a vigour of mind like that which the body gains by labour and fatigue. Another advantage is that we advance only in proportion to our strength. The mind like the body carries only that which it can carry. But when the understanding digests and assimilates things before depositing them in the memory, whatever it afterwards draws out from the memory *is its own*, whereas overburdening the memory without the understanding we put ourselves in the false position of never drawing out from it what is truly our own."

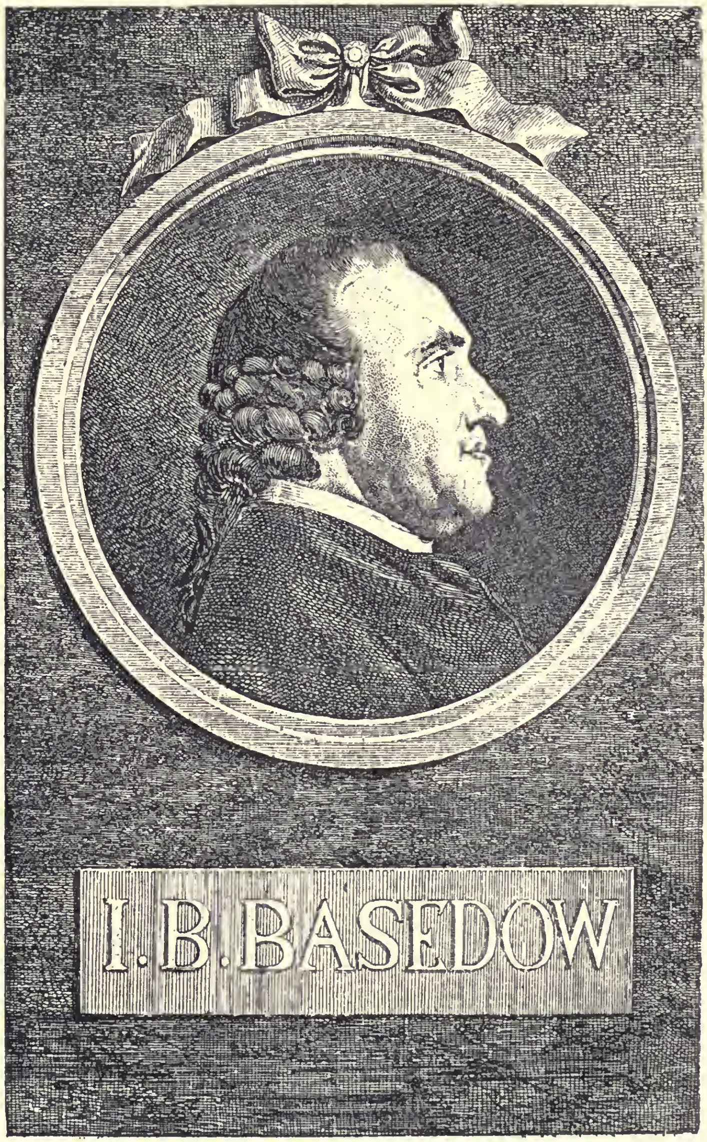
"We acquire without doubt notions more clear and certain of things we *thus learn by ourselves* than of those we derive from the teaching of others. Another advantage also resulting from this method is that we do not accustom ourselves to a servile submission to the authority of others, but by exercising our reason every day become more ingenious in discovering the relations of things, in connecting our ideas together, and in contriving instruments, whereas by adopting those put into our hands, our intellect grows dull and indifferent, as the man who is always dressed and waited on by his servants, and drawn about by his horses, loses at last the power and use of his limbs. Among the many admirable methods taken to shorten the study of the sciences, we are in great want of one to make us learn them with *effort*."

There is profound truth in these remarks. I have, as you know, often preached in the same strain, and I re-assert the doctrine that just in proportion as the educator supersedes the self-teaching the effort of his pupils he will fail of his object, for the art of teaching essentially consists in getting the pupil to learn, *i.e.*, to know by his own personal experience, by his own self-teaching. I fully agree with Mr. Wilson, of Rugby, that the stupidest of all methods of teaching is that which he calls *didactic*, by which the teacher does all the thinking, the pupil nothing.

Consistently with his doctrine that the pupil is to learn things at first, and by thinking about them himself, Rousseau professes a hatred of books, which, he says, keep the student so long engaged on the thoughts of others that he has no time to make a store of his own. Too much reading kills knowledge. We fancy that we know what we have read, and therefore conceive it to be unnecessary to learn it in the true way. Too much reading, however, serves only to make us presumptuous blockheads.

" Remember that the essence of my system is not to teach a boy a multiplicity of ideas, but to prevent his acquiring any but clear and precise ideas. "Émile" has but little knowledge, but what he has is truly his own, he knows nothing by halves. Among the few things he knows and knows *well* the most important is that there are many things which he is now ignorant of, and which he may one day know, that there are many more which some men know and he never will. He possesses a universal capacity, not in point of actual knowledge, *but in the faculty of acquiring it.* If not instructed he is capable of acquiring instruction. Once again, I say, my object is not to furnish his mind with knowledge, but to teach him the method of acquiring it when he has occasion for it, to make him value it at its proper worth, and to inspire him above all with a love for truth."

At this point I must, though unwillingly, close my account of


I.B.BASEDOW

Rousseau's doctrines on education. Their distinctive characteristic is that they are founded on a close study of human nature. This is, I think, especially true with regard to his views on teaching. As to the moral education described in the "Émile," since I do not profess any great admiration of it, I have not endeavoured to expound it. To do so with effect would occupy a long time, and not end after all in much satisfaction. With much that is natural he combines so much that is artificial, and on that account causes repulsion rather than attraction, that in describing it criticism must have gone along with exposition, and for that I repeat we have not time. I do not suppose that any man, even after him, tried on a real child his system of moral training. His views, however, of intellectual education and training bore much fruit when transplanted into later systems, and can never be lost sight of in any system of natural teaching.

BASEDOW.[23]

The next name given in the printed programme of my lectures is that of Basedow, of whom, however, I cannot say much. He was born in 1723 at Hamburg, became in early life a teacher, and in his practice adapted himself to the capacities of the children, and taught them much by *conversation* and in the way of *play*, connecting his instruction with surrounding objects in the house, garden, or fields. He was thus in some degree a forerunner of Fröbel. After a time he became acquainted with "Émile," the reading of which, though it did not really open his eyes, which were already open, led to a great extension of his horizon, and immensely quickened his zeal as a teacher.

While a private tutor in the family of a country gentleman in Holstein, he invented for the use of his one pupil, a boy seven years old, a new method of teaching languages ; and by this means learnt, he says himself, for the first time, to speak and write Latin. He was afterwards Professor in more than one academy or grammar school, in which position his unorthodox opinions and writings on theology brought upon him much odium.

In 1768, Basedow published the plan of a system of education, in the form of a "Proposal to philanthropists and wealthy men, respecting schools, studies, and their influence on the general good," the object of which was to gain support and subscriptions for an "Elementary Book" of universal instruction, which, after the model of Comenius's *Orbis Pictus*, was to combine a complete system of instruction, both in things and languages, with pictorial illustrations. The appeal was addressed to emperors, kings, academies, and learned men everywhere, and met with so much success that he was able to bring out the projected work in four volumes, illustrated with one hundred copper-plates, mostly by the eminent artist, Chodowiecki.

But Basedow was not a man to be contented with books. He longed to see his principles in action, and being possessed of inexhaustible perseverance and energy, he continued to address appeals to princes and magnates of all classes to aid him in establishing a model school or college.

After much exertion he at length obtained a patron, Prince Leopold of Anhalt-Dessau, and under his auspices, and with the aid of liberal endowments from the Prince, Basedow opened at Dessau, on the 27th December, 1774, an Institution to which he gave the name of "Philanthropin." It was, in fact, a school in which (to use Mr. Quick's words) for the first and probably for the last time use and wont were entirely set aside, and everything was done on improved principles. Its success by no means answered to its profession. This was, I think, due very much to the character of the man. Basedow's temperament was very much like Ratich's. He could do nothing without a great flourish of trumpets, and was much given to relying on patronage. As a general rule it will, I think, be found that a man who cannot succeed without patronage will not succeed with it. The only safe principle in the long run is to depend on yourself and to rely on the patronage of the public rather than on that of an individual. Moreover, although Basedow professed himself to be a disciple of Rousseau's system, with, of course, improvements of his own, he forgot the essential principle of teaching a few things well, and propounded accordingly an immense curriculum which it was quite impossible to realise in practice. This was a fatal error, a direct violation of the principle *non multa sed multum.* Basedow must, however, have been a very interesting teacher. I will read from Mr. Quick's book a passage describing a lesson at the Philanthropin, which illustrates this assertion, merely premising that I have, in a Kinder-Garten school at Wiesbaden, myself been present at a lesson on teaching English, which very much resembled the following, and which appeared to me both very interesting and very effective.* The eminent philosopher Kant took great interest in the Philanthropin, and said in praise of it, what, however, others may be disposed to condemn, that it was the only school in which *experiments* were made, and where the teachers had liberty to work according to their own mothods and schemes. Certainly before this license was permitted to the subalterns, we ought to be well assured of the thorough competency and judgment of the commanding officer, or the time of the children might be all wasted in trying such experiments.

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* Quick's "Essays on Educational Reformers," pp. 148–151 (of the reprint); also in Von Raumer's "Geschichte der Pädagogik," 2nd Part, p. 280, &c.

Basedow was, however, evidently successful in finding good assistants. Wolke, who was the actual teacher in the lesson described in Mr. Quick's book, was one of them. He first joined Basedow at Altona, where he assisted in preparing the "Elementary Book," and afterwards became a teacher in the Philanthropin. Wolke has left an account of an experiment in education made on Basedow's own little girl, which is certainly a curiosity in its way, though I cannot altogether recommend it to you for imitation. The education of this little prodigy commenced when she was *nine months* old. Wolke, along with her mother, devoted an hour and a half daily to guide her in the knowledge of external objects and their properties by pointing these out to the child, and pronouncing their names, clearly and distinctly, without any of the corruptions or abreviations commonly used in speaking to children. Sedulous care was taken not to confuse the child's mind by conventional fallacies, such as speaking of the pictures in a book as if they were real objects. Emilie's face in the looking-glass was always called her image, not herself. Her doll was called a doll, not a baby, and so on. By this *sincerity* in dealing with the child, and also by following a certain selection and order in the objects presented to her, the teacher claims to have given her, when a year and a half old, such an accuracy of judgment as to astonish all beholders. At this age she was not only able to speak with a correctness and distinctness far beyond her years, but, by means of a peculiar method adopted, of learning to spell words by the sound of the spoken letters before learning to read, and she could understand sentences of which the letters were one after another repeated to her. Thus when any one said to her, for instance, the letters y—o—u s—h—a—l—l h—a—v—e a b—i—s—c—u—i—t, the child understood at once, "You shall have a biscuit." This teaching was entirely without books, but the advantages of the method were seen when, at the end of her third year, instruction in reading commenced, for she learnt to read perfectly in about one month.

In the course of the next year Basedow was absent from home for about two months and a half, and Wolke prepared a pleasant surprise for him on his return, by teaching the little girl, by conversation only, during his absence, to speak French so far as to be able to express her own wants and feelings without introducing German words. From this to reading French was an easy step, and this accomplishment was acquired, as easily as reading her native tongue had been, in about a month and a half. When the little girl was four and a half years old advantage was taken of another absence of her father's to teach her Latin, and thus afford him on his return a similar pleasant surprise to that which, on a previous occasion, her proficiency in French had given him; and in a short time she was able to speak Latin fluently, or at least to answer questions in that language. Before the completion of her ninth year, indeed, she could, we are told, read off Latin authors into fluent German. One naturally imagines that such extraordinary precocity must have resulted in forming a very artificial and unchildlike character. I should, however, allow the teacher of this infant prodigy to defend himself on that point. Wolke declares that all this knowledge was acquired by Emilie as in play, that is, without any effort, or injurious sedentary habits. He avoided scrupulously the common error of making her a so-called "learned female," or blue-stocking neglectful of feminine duties. On the contrary, she was specially interested in household matters, such as cooking, laying the table &c., besides sewing and knitting.

Basedow seems to have followed in some respects Rousseau's principles in the education of his little girl, whose name even was doubtless suggested by "Émile." But he evidently widely departed from his model, in this as in other respects, for Rousseau was strongly opposed to precocity in book-learning, and especially in learning languages. This inconsistency was partly due, perhaps, to parental weakness, and a foolish pride in the marvellous accomplishment of his little daughter. But also, as pointed out by Von Raumer, it arose from a desire to astonish the public with a remarkable success in education. This marvellous child was put forward in Basedow's works and in public examination as a living proof of what the new system of teaching could effect, and served, in fact, as an advertisement for the Philanthropin.*

I must repeat that I am not putting forward the education of Emilie Basedow as an example for imitation; but the short sketch I have given you brings out some important points in her father's system. First the method of teaching by objective demonstration:

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* It is pleasant to be able to record that the little subject of this educational experiment did not, at all events, die young, but grew up to womanhood and married a clergyman.

the things first, and the words afterwards. Secondly, it exhibits the plan of teaching languages by conversation and practice before learning any grammatical rules, which I have often insisted upon. In these points Basedow reminds us of the innovators in general, and of Pestalozzi, Fröbel, and others who came after him.

Notwithstanding Basedow's talents and enthusiasm, his character was evidently unsuited for the management of such an institution as the Philanthropin. He resigned the post of director, and Campe, afterwards an eminent educational writer, occupied his place for one year. Later on the direction was in the hands of Wolke, with whom Basedow had managed to quarrel; and Salzmann also, in after years a celebrated schoolmaster, became his assistant. Basedow continued to live in Dessau as a private teacher, and brought out several books; but his coarse tastes, and especially his habits of drinking, greatly injured his reputation. He died in 1790, in his 67th year.

The Philanthropin at Dessau was closed in 1793, but it may fairly be said that its principles were carried out in several other institutions founded on its model, of which the most celebrated were that of Campe, in Homburg; and that of Salzmann, in Gotha, which still exists.

It may have been supposed from what I have said of Basedow as a man, that I undervalue his principles. This is not the case; the system which brought to the light such teachers as Campe and Salzmann, to whom I formerly referred when speaking of the education of the senses, cannot but contain much that is sound and valuable. I give you, in conclusion, from Dr. Reiche's book on education, a summary of his principles.

The object of education is to develop the man, not merely the particular man destined for a special office in society. The main point, then, is to treat him as a citizen of the world. The first thing, therefore, we have to do is to educate his bodily powers by an intelligent and simple system of gymnastics. In the next place we are to set aside the cultivation of the memory through words, and to substitute for it the cultivation of the understanding through things. This, too, is the way to the heart. What the child learns must be intelligible and practical. The material must be taken from the world of realities, and the method must be the intuitive, like that of Comenius. Languages, whether ancient or modern, must be learnt through conversation, and in connection with the teaching of things. Especially must learning be made easy and agreeable to the child. Discipline, too, must rather consist in an appeal to honour than to blows. Children are naturally well-disposed. Coercion generally makes them bad. Philanthropy, love towards men, must be the tendency fostered by all educators. The natural inclination in children to freedom of action, we must guide and regulate, not repress. Our religious teaching must be pervaded by the same principles; virtue and religion should be presented in a winning aspect, that children may learn to love them. Early religious instruction should consist of the simplest and most general truths without reference to dogmatic theology; belief belongs to later years.

There can be no doubt that these principles exercised great influence on the development of education in Germany, and in some degree prepared the way for the reception of the ideas of Pestalozzi, by which they were superseded.

HEINRICH PESTALOZZI.

1746–1827.

97.

LECTURE IX.

PESTALOZZI:

THE INFLUENCE OF HIS PRINCIPLES AND PRACTICE ON ELEMENTARY EDUCATION.[24]

FAMILIAR as Pestalozzi's name is to our ears, it will hardly be pretended that he himself is well known amongst us. His life and personal character—the work he did himself, and that which he influenced others to do—his successes and failures as a teacher, form altogether a large subject, which requires, to do it justice, a thoughtful and lengthened study. Parts of the subject have been from time to time brought very prominently before the public, but often in such a way as to throw the rest into shadow, and hinder the appreciation of it as a whole. Though this has been done without any hostile intention, the general effect has been in England to misrepresent, and therefore to under-estimate, a very remarkable man—a man whose principles, slowly but surely operating on the public opinion of Germany, have sufficed, to use his own pithy expression, "to turn right round the car of Education, and set it in a new direction."

One of the aspects in which he has been brought before us—and it deserves every consideration—is that of an earnest, self-sacrificing, enthusiastic, philanthropist, endowed with what Richter calls "an almighty love," whose first and last thought was how he might raise the debased and suffering among his countrymen to a higher level of happiness and knowledge, by bestowing upon them the blessings of education. It is right that he should be thus exhibited to the world, for never did any man better deserve to be enrolled in the noble army of martyrs who have died that others might live, than Pestalozzi. To call him the Howard of educational philanthropists, is only doing scant justice to his devoted character, and under-estimates, rather than over-estimates, the man.

Another aspect in which Pestalozzi is sometimes presented to us is that of an unhandy, unpractical, dreamy theorist; whose views were ever extending beyond the compass of his control; who, like the djinn of the Eastern story, called into being forces which mastered instead of obeying him; whose "unrivalled incapacity for governing" (this is his own confession) made him the victim of circumstances; who was utterly wanting in worldly wisdom; who, knowing man, did not know men; and who, therefore, is to be set down as one who promised much more than he performed. It is impossible to deny that there is substantial truth in such a representation; but this only increases the wonder that, in spite of his disqualifications, he accomplished so much. It is still true that his awakening voice, calling for reform in education, was responded to by hundreds of earnest and intelligent men, who placed themselves under his banner, and were proud to follow whither the Luther of educational reform wished to lead them.

A third view of Pestalozzi presents him to us as merely interested about elementary education—and this appears to many who are engaged in teaching what are called higher subjects a matter in which they have little or no concern. Those, however, who thus look down on Pestalozzi's work, only show, by their indifference, a profound want, both of self-knowledge and of a knowledge of his principles and purpose. Elementary education, in the sense in which Pestalozzi understands it, is, or ought to be, the concern of every teacher, whatever may be his especial subject, and whatever the age of his pupils; and when he sees that elementary education is only another expression for the forming of the character and mind of the child, he must acknowledge that this object comes properly within the sphere of his labours, and deserves, on every ground, his thoughtful attention.

In spite, then, of Pestalozzi's patent disqualifications in many respects for the task he undertook; in spite of his ignorance of even common subjects (for he spoke, read, wrote, and cyphered badly, and knew next to nothing of classics or science); in spite of his want of wordly wisdom, of any comprehensive and exact knowledge of men and of things; in spite of his being merely an elementary teacher,—through the force of his all-conquering love, the nobility of his heart, the resistless energy of his enthusiasm, his firm grasp of a few first principles, his eloquent exposition of them in words, his resolute manifestation of them in deeds,—he stands forth among educational reformers as the man whose influence on education is wider, deeper, more penetrating, than that of all the rest—the prophet and the sovereign of the domain in which he lived and laboured.

The fact that, with such disqualifications and drawbacks, he has attained such a position, supersedes any argument for our giving earnest heed to what he was and what he did. It is a fact pregnant in suggestions, and to the consideration of them this Lecture is to be devoted.

It was late in life—he was fifty-two years of age—before Pestalozzi became a practical schoolmaster.[25] He had even begun to despair of ever finding the career in which he might attempt to realize the theories over which his loving heart and teeming brain had been brooding from his earliest youth. He feared that he should die, without reducing the ideal of his thought to the real of action.*

Besides the advanced age at which Pestalozzi began his work, there was another disability in his case to which I have not referred. This was, that not only had he had no experience of school work, but he knew no eminent teacher whose example might have stimulated him to imitation: and he was entirely ignorant (with one notable exception) of all writings on the theory and practice of education. The exception I refer to is the "Émile" of Rousseau, a remarkably suggestive book, which made, as was to be expected, a strong impression on his mind. We know from his own account, that he had already endeavoured, with indifferent success, to make his own son another Émile. The diary in which he has recorded day by day the particulars of his experiment is extremely interesting and instructive. He became acquainted with "Émile" early in life, and as he characteristically says: "My visionary and highly speculative mind was enthusiastically seized by the visionary and highly speculative book." It was, indeed, by those features of the book that he was more impressed than by the practical parts of it. He was not at that time a teacher, and when he became one, it does not appear that he had the notion (which was, however, Basedow's) of consciously framing his plan of either educating or teaching on Rousseau's principles. These principles, at all events, when transplanted into Pestalozzi's soil, produced a very different kind of flower.

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* See the particulars of Pestalozzi's life, in Mr. Quick's admirable "Essays on Educational Reformers;" in "Pestalozzi," edited for the Home and Colonial Society, by Mr. Dunning; in Von Raumer's "History of Education;" in Roger Guimps' "Histoire de Pestalozzi, de sa Pensée, et de son Œuvre," Lausanne, 1874; in the "Life and Work of Pestalozzi," by Hermann Krüsi, New York, 1875; and in various treatises by Mr. Henry Barnard late of the State Department of Education, Washington.

At fifty-two years of age, then, we find Pestalozzi utterly unacquainted with the science and the art of education, and very scantily furnished even with elementary knowledge, undertaking at Stanz, in the canton of Unterwalden, the charge of eighty children, whom the events of war had rendered homeless and destitute. Here he was at last in the position which, during years of sorrow and disappointment, he had eagerly desired to fill. He was now brought into immediate contact with ignorance, vice, and brutality, and had the opportunity for testing the power of his long-cherished theories. The man whose absorbing idea had been that the ennobling of the people, even of the lowest class, through education, was no mere dream, was now, in the midst of extraordinary difficulties, to struggle with the solution of the problem. And surely if any man, consciously possessing strength to fight, and only desiring to be brought face to face with his adversary, ever had his utmost wishes granted, it was Pestalozzi at Stanz. Let us try for a moment to realize the circumstances—the forces of the enemy on the one side, the single arm on the other, and the field of the combat. The house in which the eighty children were assembled to be boarded, lodged, and taught, was an old tumbledown Ursuline convent, scarcely habitable, and destitute of all the conveniences of life. The only apartment suitable for a schoolroom was about twenty-four feet square, furnished with a few desks and forms; and into this were crowded the wretched children, noisy, dirty, diseased, and ignorant, with the manners and habits of barbarians. Pestalozzi's only helper in the management of the institution was an old woman, who cooked the food and swept the rooms; so that he was, as he tells us himself, not only the teacher, but the paymaster, man-servant, and almost the housemaid of the children.

Here, then, we see Pestalozzi surrounded by a "sea of troubles," against which he had not only "to take arms," but to forge the arms himself. And what was the single weapon on which he relied for conquest? It was his own loving heart. Hear his words:—"My wishes were now accomplished. I felt convinced that my *heart* would change the condition of my children as speedily as the springtide sun reanimates the earth frozen by the winter. Nor," he adds, "was I mistaken. Before the springtide sun melted away the snow from our mountains, you could no longer recognise the same children."

But how was this wonderful transformation effected? What do Pestalozzi's words really mean? Let us pause for a moment to consider them. Here is a man who, in presence of ignorance, obstinacy, dirt, brutality, and vice—enemies that will destroy *him* unless he can destroy *them*—opposes to them the unresistible might of weakness, or what appears such, and fights them with his *heart!*

Let all teachers ponder over the fact, and remember that this weapon, too frequently forgotten, and therefore unforged, in our training colleges, is an indispensable requisite to their equipment. Wanting this, all the paraphernalia of literary certificates—even the diplomas of the College of Preceptors—will be unavailing. With it, the teacher, poorly furnished in other respects (think of Pestalozzi's literary qualifications!), may work wonders, compared with which the so-called magician's are mere child's play. The first lesson, then, that we learn from Pestalozzi is, that the teacher must have a heart—an apparently simple but really profound discovery, to which we cannot attach too much importance.

But Pestalozzi's own heart was not merely a statical heart—a heart furnished with capabilities for action, but not acting; it was a dynamical heart—a heart which was constantly at work, and vitalized the system. Let us see how it worked.

"I was obliged," he says, "unceasingly to be everything to my children. I was alone with them from morning to night. It was from my hand they received whatever could be of service both to their bodies and minds. All succour, all consolation, all instruction came to them immediately from myself. Their hands were in my hand; my eyes were fixed on theirs, my tears mingled with theirs, my smiles encountered theirs, my soup was their soup, my drink was their drink. I had around me neither family, friends, nor servants; I had only them. I was with them when they were in health, by their side when they were ill. I slept in their midst. I was the last to go to bed, the first to rise in the morning. When we were in bed, I used to pray with them and talk to them till they went to sleep. They wished me to do so."

This active, practical, self-sacrificing love, beaming on the frozen hearts of the children, by degrees melted and animated them. But it was only by degrees. Pestalozzi was at first disappointed. He had expected too much, and had formed no plan of action. He even rather prided himself upon his want of plan.

"I knew," he says, "no system, no method, no art but that which rested on the simple consequences of the firm belief of the children in my love towards them. I wished to know no other."

Before long, however, he began to see that the response which the movement of his heart towards theirs called forth was rather a response to his personal efforts, than one dictated by their own will and conscience. It excited action, but not spontaneous, independent action. This did not satisfy him. He wished to make them act from strictly moral motives.

Gradually, then, Pestalozzi advanced to the main principles of his system of moral education—that virtue, to be worth anything, must be practical; that it must consist not merely in knowing what is right, but in doing it; that even knowing what is right does not come from the exposition of dogmatic precepts, but from the convictions of the conscience; and that therefore both knowing and doing rest ultimately on the enlightenment of the conscience through the exercise of the intellect.

He endeavoured, in the first place, to awaken the moral sense—to make the children conscious of their moral powers, and to accomplish his object, not by preaching to them, though he sometimes did this, but by calling these powers into exercise. He gave them, as he tells us, few explanations. He taught them dogmatically neither morality nor religion. He wished them to be both moral and religious; but he conceived that it was not possible to make them so by verbal precept, by word of command, nor by forcing them to commit to memory formularies which did not represent their own convictions. He did not wish them to say they believed before they believed. He appealed to what was divine in their hearts, implanted there by the Supreme Creator; and having brought it out into consciousness, called on them to exhibit it in action. "When," he says, "the children were perfectly still, so that you might hear a pin drop, I said to them, 'Don't you feel yourselves more reasonable and more happy now than when you are making a disorderly noise?' When they clung round my neck and called me their father, I would say, 'Children, could you deceive your father? Could you, after embracing me thus, do behind my back what you know I disapprove of?' And when we were speaking about the misery of our country, and they felt the happiness of their own lot, I used to say, 'How good God is, to make the heart of man pitiful and compassionate.'" At other times, after telling them of the desolation of some family in the neighbourhood, he would ask them whether they were willing to sacrifice a portion of their own food to feed the starving children of that family?

These instances will suffice to show generally what Pestalozzi meant by moral education, and how he operated on the hearts and consciences of the children. We see that, instead of feeding their imagination with pictures of virtue beyond and above their sphere, he called on them to exercise those within their reach. He knew what their ordinary family life had been, and he wished to prepare them for something better and nobler; but he felt that this could only be accomplished by making them, while members of *his* family, consciously appreciate what was right, and desire to do it.

Here, then, in moral and, as we shall presently see, in intellectual education, Pestalozzi proceeded from the near, the practical, the actual—to the remote, the abstract, the ideal. It was on the foundation of what the children were, and could become, in the sphere they occupied, that he built up their moral education.

But he conceived—and, I think, justly—that their intellectual training was to be looked on as part of their moral training. Whatever increases our knowledge of things as they are, leads to the appreciation of truth; for truth, in the widest sense of the term, is this knowledge. But the acquisition of knowledge, as requiring mental effort, and therefore exercising the active powers, necessarily increases the capacity to form judgments on moral questions; so that, in proportion as you cultivate the will, the affections, and the conscience, with a view to independent action, you must cultivate the intellect, which is to impose the proper limits on that independence; and, on the other hand, in proportion as you cultivate the intellect, you must train the moral powers which are to carry its decisions into effect. Moral and intellectual education must consequently, in the formation of the human being, proceed together, the one stimulating and maintaining the action of the other. Pestalozzi, therefore, instructed as well as educated; and, indeed, educated by means of instruction. In carrying out this object, he adopted the general principle I before stated. He proceeded from the near, the practical, the actual, to the remote, the abstract, and the ideal.

We shall see his theoretical views on this point in a few quotations from a work which he published in 1780, when he was 35 years of age, entitled "The Evening Hours of a Hermit." He says:—

"Nature develops all the human faculties by practice, and their growth depends on their exercise."

"The circle of knowledge commences close around a man, and thence extends concentrically."

"Force not the faculties of children into the remote paths of knowledge, until they have gained strength by exercise on things that are near them."

"There is in Nature an order and march of development. If you disturb or interfere with it, you mar the peace and harmony of the mind. And this you do, if, before you have formed the mind by the progressive knowledge of the realities of life, you fling it into the labyrinth of words, and made them the basis of development."

"The artificial march of the ordinary school, anticipating the order of Nature, which proceeds without anxiety and without haste, inverts this order by placing words first, and thus secures a deceitful appearance of success at the expense of natural and safe development."

In these few sentences we recognise all that is most characteristic in the educational principles of Pestalozzi.

I will put them into another form:—

1. There is a natural order in which the powers of the human being develop or unfold themselves.

2. We must study and understand this order of nature, if we would aid, and not disturb, the development.

3. We aid the development, and consequently promote the growth of the faculties concerned in it, when we call them into exercise.

4. Nature exercises the faculties of children on the realities of life—on the near, the present, the actual.

5. If we would promote that exercise of the faculties which constitutes development and ends in growth, we also, as teachers, must, in the case of children, direct them to the realities of life—to the things which come in contact with them, which concern their immediate interests, feelings, and thoughts.

6. Within this area of personal experience we must confine them, until, by assiduous practical exercise in it, their powers are strengthened, and they are prepared to advance to the next concentric circle, and then to the next, and so on, in unbroken succession.

7. In the order of nature, things go before words, the realities before the symbols, the substance before the shadow. We cannot, without disturbing the harmonious order of the development, invert this order. If we do so, we take the traveller out of the open sunlit high-road, and plunge him into an obscure labyrinth, where he gets entangled and bewildered, and loses his way.

These are the fundamental principles of Pestalozzi's theory of intellectual as well as moral education, and I need hardly say that they resolve themselves into the principles of human nature.

But we next enquire, How did he apply them? What was his method? These questions are somewhat embarrassing, and, if strictly pressed, must be answered by saying that he often applied them very imperfectly and inconsistently, and that his method for the most part consisted in having none at all. The fact is, that the unrivalled incapacity for governing men and external things, to which he confessed, extended itself also to the inner region of his understanding. He could no more govern his conceptions than the circumstances around him. The resulting action, then, was wanting in order and proportion. It was the action of a man set upon bringing out the powers of those he influenced, but apparently almost indifferent to what became of the results. His notion of education as development was clear; but he scarcely conceived of it as also training and discipline. Provided that he could secure a vivid interest in his lesson, and see the response to his efforts in the kindling eyes and animated countenances of his pupils, he was satisfied. He took it for granted that what was so eagerly received would be certainly retained, and therefore never thought of repeating the lesson, nor of examining the product. He was so earnestly intent upon going ahead, that he scarcely looked back to see who were following; and to his enormous zeal for the good of the whole, often sacrificed the interests of individuals. This zeal was without discretion. He forgot what he might have learned from Rousseau —that a teacher who is master of his art frequently advances most surely by standing still, and does most by doing nothing. In the matter of words, moreover, his practice was often directly opposed to his principles. He would give lists of words to be repeated after him, or learnt by heart, which represented nothing real in the experience of the pupils. In various other ways he manifested some strange inconsistencies, of which, in order to form some notion of Pestalozzi's weakness as well as of his strength, one example may be given. In another work, entitled "How Gertrude teaches her Children," he says, "Observation is the absolute basis of knowledge; in other words, all knowledge must proceed from observation, and must admit of being returned to that source. The beginning of all knowledge is observation; the last point to be attained is a clear notion. All our knowledge arises out of number, form, and language. Education, therefore, must (1) teach children to look attentively at every object they are made to perceive, as unity, that is, as separated from those other objects with which it appears in connection; (2) must make them acquainted with the form of every object, that is, its size and proportions; (3) must teach them as early as possible the names and words applicable to all the objects with which they are acquainted.

Von Raumer makes some very sensible objections to these views of Pestalozzi's; not, however, to their spirit, of which he approves, but to their limited range. He shows that Pestalozzi is wrong in confining observation, as he does, essentially to *sight*, and shows, what is indeed obvious, that observation involves the use of all the senses. We shall see presently that this notion of his really affected his practice, and led him to be satisfied with *showing* the object to be learned to his pupils, instead of requiring them to exhaust the operation of their senses upon it, and thus to make the lesson a true example of *personal experience.* Another objection taken by Von Raumer is against Pestalozzi's notion of language. He shows that Pestalozzi erred against his own principles in attaching the extreme importance he does to words, which there is no doubt he is continually tending to put into the place of things. In one passage, he says, "Great is the gift of language. It gives to the child in one moment what nature required thousands of years to give to man;" the only meaning of which is, that if you give the words you give the knowledge. A wonderful principle, certainly, to come from the pen of one who maintains that observation—personal exercise of the senses—is the true and essential basis of all knowledge. Nor was this principle barren in the hands of Pestalozzi, who recommends mothers to repeat, even to babies in their cradles, long lists of unintelligent words, in order, as he says, to impress them so deeply in the memory of the children that they shall never be forgotten. And in the next stage of instruction he would give the child long lists of the names of persons, places, natural objects, of which they had had no personal experience whatever, these lessons consisting, as Von Raumer says, "Not in the naming of objects arising out of knowing them, but in the names for their own sake."

I have often insisted in your hearing, upon the principle that a definition made by one man for the use of another is only valuable to the latter when he sees himself, by the light of personal experience, the special truths contained in the general enunciation of them through the definition. Pestalozzi also speaks warmly against definitions not founded on observation, and adds, "For a child a definition contains truth only in so far as he has a clear and comprehensive view of the groundwork of observation on which these ideas are based." Fichte also says, with regard to Pestalozzi's idea, "In the field of objective knowledge which relates to external objects, the acquaintance with the literal sign that represents the clearness and definitions of the knowledge, adds nothing whatever for the student himself; it only heightens the value of the knowledge with reference to its communication to others, which is a totally different matter. The clearness of such knowledge can result only from observation, and that which we can at pleasure reproduce in all its parts just as it is, in the imagination, is perfectly known—whether we have a word for it or not." Of the radical confusion in Pestalozzi's mind respecting the true relation of the object to the sign in a word, we have a notable instance in his own experience. He was one day giving a lesson on a ladder—no ladder being present—volubly describing and explaining what it was, when a little fellow in the class interrupted him by saying "There is a ladder in the yard, teacher; shall we bring it in?" What he proposed was done, and Pestalozzi tells us that at that moment a revolution took place in his mind. The child, by this suggestion, had taught the man what had never occurred to him before, that truly accurate notions of things can only be gained from the things themselves at first, and not from descriptions of them at second-hand. We see, then, from Pestalozzi's theory in relation to his practice with regard to this matter of observation, and its connection with language, that we must judge of him generally more by what he wished to do than by what he did.

Yet, in spite of all these drawbacks, if we look upon the teacher as a man whose especial function it is, to use an illustration from Socrates, to be, as it were, the accoucheur of the mind, to bring it out into the sunlight of life, to rouse its dormant powers, and make it conscious of their possession, we must assign to Pestalozzi a very high rank among teachers.

It was this remarkable instinct for developing the faculties of his pupils that formed his main characteristic as a teacher. Herein lay his great strength. To set the intellectual machinery in motion—to make it work, and keep it working; that was the sole object at which he aimed; of all the rest he took little account. If he had any method, this was its most important element. But, in carrying it out, he relied upon a principle which must be insisted on as cardinal and essential in education.

He secured the thorough interest of his pupils in the lesson, and mainly through their own direct share in it. By his influence upon them he got them to concentrate all their powers upon it; and this concentration, involving self-exercise, in turn, by reaction, augmented the interest; and the result was an inseparable association of the act of learning with pleasure in learning. Whatever else, then, Pestalozzi's teaching lacked, it was intensely interesting to the children, and made them love learning.

Consistently with the principles quoted from the "Evening Hours of a Hermit," and with the practice just described, we see that Pestalozzi's conception of the teacher's function made it consist pre-eminently in rousing the pupil's native energies, and bringing about their self-development. This self-development is the consequence of the self-activity of the pupil's own mind—of the experience which his mind goes through in dealing with the matter to be learned. This experience must be his own; by no other experience than his own can he be educated at all. The education, therefore, that he gains is self-education; and the *teacher is* constituted as *the stimulator and director of the intellectual processes by which the learner educates himself.* This I hold to be the central principle of all education—of all teaching; and although not formally enunciated in these words by Pestalozzi, it is clearly deducible from his theory.

We are now prepared to estimate the great and special service which Pestalozzi did for education. It is not his speculative theories, nor his practice (especially the latter), which have given him his reputation—it is that he, beyond all who preceded him, demanded that paramount importance should be attached to the elementary stages of teaching. "His *differentia*," as Mr. Quick justly remarks, "is rather his aim than his method." He saw more clearly than all his predecessors, not only what was needed, but how the need was to be supplied. Elementary education, in his view, means, not definite instruction in special subjects, but the eliciting of the powers of the child as preparatory to definite instruction,—it means that course of cultivation which the mind of every child ought to go through, in order to secure the all-sided development of its powers. It does not mean learning to read, write, and cypher, which are matters of instruction, but the exercises which should precede them. Viewed more generally, it is that assiduous work of the pupil's mind upon facts, as the building materials of knowledge, by which they are to be shaped and prepared for their place in the edifice. After this is done, but not before, instruction proper commences its systematic work.

This principle may find its most general expression as a precept for the teacher thus:—*Always make your pupil begin his education by dealing with concrete things and facts, never with abstractions and generalisations—such as definitions, rules, and propositions couched in words.* Things first, afterwards words—particular facts first, afterwards general facts or principles. The child has eyes, ears, and fingers, which he can employ on things and facts, and gain ideas—that is, knowledge—from them. Let him, then, thus employ them. This employment constitutes his elementary education—the education which makes him conscious of his powers, forms the mind, and prepares it for its after work.

We now see what Pestalozzi meant by elementary education. The next question is, how he proposed to secure it. Let us hear what he himself says:—"If I look back and ask myself what I have really done towards the improvement of elementary education, I find that in recognising *Observation* (*Anschauung*) as the absolute basis of all knowledge, I have established the first and most important principle of instruction; and that, setting aside all particular systems, I have endeavoured to discover what ought to be the character of instruction itself, and what are the fundamental laws according to which the natural education of the human race must be conducted." In another place he says, "Observation is the absolute basis of all knowledge. In other words, all knowledge must proceed from observation, and must admit of being traced to that source."

The word *Anschauung*, which we translate generally and somewhat vaguely by Observation, corresponds rather more closely to our word Perception. It is the mind's looking into or intellectual grasping of a thing, which is due to the reaction of its powers, after the passive reception of impressions or sensations from it. We *see* a thing which merely flits before our eyes, but we *perceive* it only when we have exhausted the action of our senses upon it, when we have dealt with it by the whole mind. The act of perception, then, is the act by which we *know* the object. If we use the term Observation in this comprehensive sense, it may be taken as equivalent to *Anschauung*.

Observation, then, according to Pestalozzi (and Bacon had said the same thing before him), is the absolute basis of all knowledge, and is therefore the prime agent in elementary education. It is around this theory, as a centre of gravity, that Pestalozzi's system revolves.

The demands of this theory can only be satisfied by educating the learner's senses, and making him, by their use, an accurate observer—and this not merely for the purpose of quickening the senses, but of securing clear and definite perceptions, and this again with a view to lay firmly the foundation of all knowledge. The habit of accurate observation, as I have thus defined it, is not taught by Nature. It must be acquired by experience. Miss Martineau remarks,—"A child does not catch a gold fish in water at the first trial, however good his eyes may be, and however clear the water. Knowledge and method are necessary to enable him to take what is actually before his eyes and under his hand;" and she adds, "The powers of observation must be trained, and habits of method in arranging the material presented to the eye [and the other sense-organs] must be acquired before the student possesses the requisites for understanding what he contemplates."*

It is scarcely necessary to show in detail what is meant by the education of the senses. This education consists in their exercise—an exercise which involves the development of all the elementary powers of the learner. Any one may see this education going on in the games and employments of the Kindergarten, and, indeed, in the occupations of every little child left to himself. It is, therefore, in the strictest sense of the term, self-education. But it should also be made an object of direct attention and study, and lessons should be given for the express purpose of securing it. The materials for such lessons are of course abundant on every hand. Earth, sky, and sea, the dwelling-house, the fields, the gardens, the streets, the river, the forest, supply them by thousands. All things within the area of the visible, the audible, and the tangible, supply the matter for such object lessons, and upon these concrete realities the senses may be educated. Drawing, again, and moulding in clay, the cutting out of paper forms, building with wooden bricks or cubes to a pattern, are all parts of the education of the senses, and, at the same time, exercises for the improvement of the observing powers. Then, again, measuring objects with a foot measure, weighing them in scales with real weights, gaining the power of estimating the dimensions of bodies by the eye, and their weight by poising them in the hand, and then verifying the guesses by actual trial—these, too, are valuable exercises for the education of the senses. It is needless to particularize further, but who does not see that such exercises involve, not merely the training of the senses, but also the culture of the observing powers as well as the exercise of judgment, reasoning, and invention, and all as parts of elementary education?* It is impossible to exaggerate their value and importance.

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* See some excellent remarks on this subject in Miss Youmans's "Essay on the Culture of the Observing Powers of Children." Edited by Joseph Payne. (King and Co., Cornhill, 1872.)

But elementary education, rightly understood, applies also to the initiatory stage of all definite instruction. If we accept Pestalozzi's doctrine, that all education must begin with the near, the actual, the real, the concrete, we must not begin any subject whatever, in the case of children, with the remote, the abstract, and the ideal—that is, never with definitions, generalities, or rules; which, as far as their experience is concerned, all belong to this category. In teaching Physics, then, we must begin with the phenomena themselves; in teaching Magnetism, for instance, with the child's actual experience of the mutual attraction of the magnet and the steel bar; Arithmetic must begin with counting and grouping marbles, peas, &c.; not with abstract numbers: Geometry, not with propositions and theorems, but with observing the forms of solid cubes, spheres, &c.; Geography, not with excursions into unknown regions, but with the schoolroom, the house, &c., thence proceeding concentrically; Language, too, with observing words and sentences as facts to be compared together, classified and generalized by the learner himself. In all these cases the same principle applies. The learner must first gain personal experience in the area of the near and the real, in which he can exercise his own powers; this area thus becomes the known which is to interpret the unknown, and thus the principle is established that the learner educates himself under the stimulation and direction of the educator.

You are now, I presume, aware of what Pestalozzi means by elementary education; and you see that it resolves itself into the education which the learner gives himself by exercising his own powers of observation and experiment. The method of elementary education is therefore the child's own natural method of gaining knowledge, guided and superintended by the formal teacher.

This method has been, by Diesterweg, an eminent German disciple of Pestalozzi, strictly distinguished from what he calls the Scientific method—that which is employed in higher instruction, in universities and colleges, and is suitable for learners whose minds are already developed and trained. The elementary method he says, is inductive, analytic, inventive (or heuristic, from *εὑρίσκω*, I find out), developing. It begins with individual things or facts, lays these as the foundation and proceeds afterwards to general facts or principles. The Scientific method, on the other hand, is deductive, synthetic, dogmatic, and didactic. It begins with definitions, general propositions and axioms, and procceds downwards to the individual facts on which they are founded.

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* I beg very strongly to recommend to all teachers, and to mothers who teach their children, a most valuable little book, written by the late Horace Grant, "Exercises for the Improvement of the Senses." (Bell and Daldy.)

I will give the substance of his further remarks on the subject.

In learning by the Elementary method, we begin with individual things—facts or objects. From these we gain definite ideas, ideas naturally related to the condition of our powers, or of our knowledge, as being the result of our own personal experience. Such knowledge, as the product of our own efforts, is ours, in a sense in which no knowledge of others can ever become ours; and, being ours, serves as the solid basis of the judgments and inductions that we are able to form,—the method is *inductive* because it begins with individual facts.

The Scientific method, on the other hand, is *deductive*, because it begins with general principles, definitions, axioms, formulæ, &c.; that is to say, with deductive propositions founded on facts which the learner is afterwards to know, not with facts which he already knows. The definitions, &c., are constructed for him, not by him. They are the ready-made results of the exploration of others, not the gains of his own. The deductive method proceeds from the summit to the foundation, from the unknown to the known; the inductive, from the foundation to the summit, from the known to the unknown.

The mind dealing with individual things, and seeking to know them, has no choice but to subject them to mental analysis. Every individual thing is an aggregate of elements, which can only be known by disintegration of the compound. Nature presents us with no element whatever alone and simple. The Elementary method, therefore, which requires the learner to perform this disintegration, is *analytic*. In other words, as resting on observation and experiment, it is the method of investigation.

The Scientific method, on the other hand, is *synthetic*. It performs the analysis for the learner, and hands over to him the results. It directs him to reconstruct something, the form of which he has not seen, and tells him at every moment where and how he is to place the materials. He does not necessarily know what he is constructing until the complete form is before him. He satisfies the demands of the method, if he obeys the directions given him. He is not required to observe and experiment—*i.e.*, to investigate for himself.

The Elementary method is *inventive* (heuristic). It places the learner on the path of discovery, and, by encouraging spontaneity and independence, gives free scope for the exercise of all his powers. It suggests to him new combinations of ideas already acquired, and the solution of difficulties which come in his way.

The spirit of the Scientific method is *opposed to invention.* It didactically furnishes ready-made matter which is to be received, not questioned, and dogmatically prescribes obedience to fixed rules. It consequently checks spontaneity, independence, and invention.

The Scientific method, then, as thus interpreted, though adapted to students of high pretensions, is not adapted to those who are acquiring the elements of knowledge. The mistake, for the discovery of which we are indebted to Pestalozzi, is, that in our ordinary traditional teaching and Scientific method has, unfortunately, come to be employed in our schools for children where the elementary method alone is natural and suited to the circumstances. Pestalozzi's eminent claim to our gratitude consists in the service he has done to education by "turning the traditional car of school routine quite round, and setting it in a new direction."

I conclude the exposition I have given of Pestalozzi's fundamental principles, by appending a summary of them.

I. The principles of education are not to be devised *ab extra;* they are to be sought for in human nature.

II. This nature is an organic nature—a plexus of bodily, intellectual, and moral capabilities, ready for development, and struggling to develop themselves.

III. The education conducted by the formal educator has both a negative and a positive side. The negative function of the educator consists in removing impediments, so as to afford free scope for the learner's self-development. His positive function is to stimulate the learner to the exercise of his powers, to furnish materials and occasions for the exercise, and to superintend and maintain the action of the machinery.

IV. Self-development begins with the impressions received by the mind from external objects. These impressions (called sensations), when the mind becomes conscious of them, group themselves into perceptions. These are registered in the mind as conceptions or ideas, and constitute that elementary knowledge which is the basis of all knowledge.

V. Spontaneity and self-activity are the necessary conditions under which the mind educates itself, and gains power and independence.

VI. Practical aptness, or faculty, depends more on habits gained by the assiduous oft-repeated exercise of the learner's active powers, than on knowledge alone. Knowing and doing (*wissen und können*) must, however, proceed together. The chief aim of all education (including instruction) is the development of the learner's powers.

VII. All education (including instruction) must be grounded on the learner's own observation (*Anschauung*) at first hand—on his own personal experience. This is the true basis of all his knowledge. The opposite proceeding leads to empty, hollow, delusive word-knowledge. First the reality, then the symbol; first the thing, then the word; not *vice versâ.*

VIII. What the learner has gained by his own observation (*Anschauung*), and, as a part of his personal experience, is incorporated with his mind, he *knows*, and can describe or explain in his own words. His competency to do this is the measure of the accuracy of his observation, and consequently of his knowledge.

IX. Personal experience necessitates the advancement of the learner's mind from the near and actual, with which he is in contact, and which he can deal with himself, to the more remote; therefore, from the concrete to the abstract, from particulars to generals, from the known to the unknown. This is the method of elementary education; the opposite proceeding—the usual proceeding of our traditional teaching—leads the mind from the abstract to the concrete, from generals to particulars, from the unknown to the known. This latter is the Scientific method—a method suited only to the advanced learner, who, it assumes, is already trained by the elementary method.

These principles, though never thus formulated by Pestalozzi, are logically deduced from his theory. With some qualifications, they form the basis of the Lectures which I have been delivering here to large classes, for the last two years, on the Science and Art of Education, and will be expounded and illustrated in the course which is now beginning.

EMANUEL VON FELLENBERG.

(1771—1844.)

It is necessary to devote a brief space to Von Fellenberg, whose institution at Hofwyl attracted at one time much attention. Von Fellenberg was a gentleman of considerable property, but the deep interest he felt in education, especially early education, and the conviction he felt of its importance, led him, while in the prime of life, to form on his own estate, and on an independent basis, a model institution, in which it should be proved what education could accomplish for the benefit of humanity. The object thus described by himself does not theoretically differ from that of Pestalozzi, but the means and agents employed were in many respects different. Von Fellenberg's wealth, which he was willing to consecrate to the cause, removed hindrances to action which often seriously impeded Pestalozzi. He therefore employed a very large number of teachers at one time, the ratio of teachers to pupils was about one to five, and was therefore able to carry out his plans through others without fagging himself to death, as Pestalozzi did. His temperament, too, calm, dignified and self-sustained, was nearly the antithesis to Pestalozzi's. The aim of both was the development of all the human powers; but this was pursued more systematically by Von Fellenberg than by Pestalozzi. Order, system, regularity, were predominant features at Hofwyl; the want of all these was the conspicuous feature at Burgdorf, and at Yverdun. Von Fellenberg introduced agriculture as a regular branch of instruction, and with excellent effect. The farmers, perhaps, did not pay, but their labour was valuable, and they gave important aid in the education as well as instruction of the pupils. There were workshops also for carpentering, and shoemaking too, on the estate, and the poorest children were taught in them, during a portion of the time.

The ruling spirit of Von Fellenberg's Institution was common-sense. He engaged the best teachers that he could find, and gave them much liberty of action in teaching. There were, therefore, no strictly theoretical views to be considered, as the theory of its Director; while at the same time we must remember, that he was not only an educated man, but one who had spared neither time nor expense to make himself acquainted with all that was known, in those days, of the science and art of education. He had learnt much, more than he acknowledged, from Pestalozzi, by residence at one of his Institutions. He took the greatest interest in the formation of character, and seems to have been particularly successful in this matter. "The object of Hofwyl," he said, "is to develop all the faculties of our nature, physical, intellectual, and moral, and to endeavour to train and unite them into one harmonious system, which shall form the most perfect character of which the individual is susceptible, and thus prepare him for every period and every sphere of action to which he may be called."

When asked what method was pursued at Hofwyl, he would answer: "There are principles peculiar to Hofwyl, but no peculiar methods; these are, on the contrary, as various as the subjects of instruction, and the character of the individual. Hofwyl is designed to be a place of education, in which instruction is the means rather than the end.

"A child ought never to be employed in exercises which are beyond his powers, whether physical, intellectual, or moral. It is folly to attempt to bring down to the level of a child's capacity what pre-supposes the intelligence of manhood, or to make an immature mind pursue the train of thought of the greatest men, as is often done in our classical and scientific schools.

"We must expect children often to go wrong. We should never forget in the performance of our task, that every right course in life is surrounded by a million of possible wrong ones; that in our institution for education we have to do with uneducated persons, and that in many cases the inevitable necessity of nature requires that we should be taught how to walk, by a succession of falls. In all that relates to puerile faults, mild words are the only efficient means.

"The pupil is to be led as much as possible to correct himself by letting him feel the natural consequences of his fault.

"Instruction being the means not the end of intellectual education, *intensity* and *accuracy*, rather than extent and vanity of knowledge, should be the objects aimed at. It is not the extent of surface which the conqueror overruns that decides the value of his conquests; it is the power he has to secure them."

These are some of the main principles insisted on by Fellenberg. Most of them you have heard before.

Kommt, laßt uns den Kindern leben!
Friedrich Fröbel.

FRIEDRICH FROEBEL.

1782–1852.

p. 117.

LECTURE X.

FRÖBEL, AND THE KINDERGARTEN SYSTEM OF ELEMENTARY EDUCATION.

(1782—1852.)

Among the names of the great Reformers of Education, there is one which has not yet received that honour which it deserves, and with which I firmly believe the future will invest it. It is that of Frederick Wilhelm August Fröbel. His claims to distinction among educators are, however, now extensively allowed in his native land, as well as in Switzerland, Holland, France, the United States, and partially even in England. These claims are numerous, and of great importance. While many others have laboured with greater or less success at the superstructure of Education, to him belongs the special credit of having earnestly devoted himself to the foundation. While others have taken to the work of Education their own pre-conceived notions of what that work should be, Fröbel stands consistently alone in seeking in the nature of the child the laws of educational action—in learning from the child himself how we are to educate him.

Further, Fröbel is the first teacher to whom it has occurred to convert what is usually considered the waste steam of childish activities and energies into the means of fruitful action; to utilize what has hitherto been looked upon as unworthy of notice; and, moreover, to accomplish this object, not only without repressing the naturally free spirit of childhood, but by making that free spirit the very instrument of his purpose.

In tracing the development of Fröbel's principles of elementary education, I propose to connect with this development a sketch of the personal history of the man. We shall in this way learn to appreciate not only the principles at which he ultimately arrived, but the mental processes which led to them.

Fröbel was born April 21, 1782, at Oberweissbach, in the principality of Schwartzburg-Rudolstadt. His mother died when he was so young that he never even remembered her; and he was left to the care of an ignorant maid-of-all-work, who simply provided for his bodily wants. His father, who was the laborious pastor of several parishes, seems to have been solely occupied with his duties, and to have given no concern whatever to the development of the child's mind and character beyond that of strictly confining him within doors, lest he should come to harm by straying away. One of Fröbel's principal amusements, he tells us, consisted in watching from the window some workmen who were repairing the church, and he remembered long afterwards how he earnestly desired to lend a helping hand himself. The instinct of construction, for the exercise of which, in his system, he makes ample provision, was even then stirring within him. As years went on, though nothing was done for his education by others, he found opportunities for satisfying some of the longings of his soul, by wandering in the woods, gathering flowers, listening to the birds, or to the wind as it swayed the forest trees, watching the movements of all kinds of animals, and laying up in his mind the various impressions then produced, as a store for future years. He was, in fact, left as much to educate himself through nature as was the Mary Somerville of later times. Not until he was ten years of age did he receive the slightest regular instruction. He was then sent to school for the first time. His teachers, regular drillers of the old time-honoured stamp, had not the slightest conception of the inner nature of their pupil, and seem to have taken no pains whatever to discover it. They pronounced the boy to be idle (which, from their point of view, was quite true), and lazy (which certainly was not true)—a boy, in short, that they could do nothing with. And, in fact, the teachers did nothing with their pupil; never once touched the chords of his inner being, or brought out the music they were fitted, under different handling, to produce. Fröbel was, indeed, at that time, a thoughtful, dreamy child, a very indifferent student of books, cordially hating the formal lessons with which he was crammed, and never so happy as when left alone with his great teacher, Nature, in the woods. The result was, that he left school, after four years, almost as ignorant as when he entered it; carrying with him as the produce of his labour a considerable quantity of chaff, but very little corn. The corn consisted in some elementary notions of mathematics, a subject which interested him throughout life, and which he brought afterwards to bear on the lessons of the Kindergarten. Circumstances, which had proved so adverse to his development in his school experiences, took a favourable turn in the next step of his life. It was necessary for him to earn his bread, and we soon find him employed as an apprentice to a woodsman in the great Thuringian forest. Here, as he afterwards tells us, he lived some years in cordial intercourse with nature and mathematics, learning even then, though unconsciously from the teaching he received, how to teach others. His daily occupation in the midst of trees led him to observe the laws of nature, and to recognise union and unity in apparently contradictory phenomena. Here, too, he reflected on his previous course of education; and formed a very decided opinion on the utter worthlessness of the ordinary school teaching, as never having reached what was in himself, and therefore, in his view, failing altogether to be a true culture of the mind and of the man. His life as a forester, which, though certainly not without great influence on his mental character, was not to be his final destination, ended when he was about eighteen years of age. He now went to the University of Jena, where he attended lectures on natural history, physics, and mathematics; but, as he tells us, gained little from them. This result was obviously due to the same dreamy speculative tendency of mind which characterized his earlier school-life. Instead of studying hard, he speculated on unity and diversity, on the relation of the whole to the parts, of the parts to the whole, and so on;—continually striving after the unattainable and neglecting the attainable. This desultory style of life was put an end to by the failure of means to stay at the University. For the next few years he tried various occupations, ever restlessly tossed to and fro by the demands of the outer life, and not less distracted by the consciousness that his powers had not yet found what he calls their "centre of gravity." At last, however, they found it. While engaged in an architect's office at Frankfort, he formed an acquaintance with the Rector of the Model School, a man named Gruner. Gruner saw the capabilities of Fröbel, and detected also his entire want of interest in the work that he was doing; and one day suddenly said to him, "Give up your architect's business; you will do nothing at it. Be a teacher. We want one now in the school; you shall have the place." This was the turning point in Fröbel's life. He accepted the engagement, began work at once, and tells us that the first time he found himself in the midst of a class of thirty or forty boys, he felt that he was in the element that he had wanted so long—"the fish was in the water." He was inexpressibly happy. This ecstasy of feeling, we may easily imagine, soon subsided. In a calmer mood he severely questioned himself as to the means by which he was to satisfy the demands of his new position. He found the answer, he says, by descending into himself, and listening to the teachings of nature respecting life, mind, and being—lessons already theoretically known, but now, for the first time correlated with practice. "My hitherto peculiar development, self-cultivation, self-teaching," he says, "as well as my observation of nature and of life, now found their proper place. But he keenly felt, at the same time, the effects of his desultory manner of study. He was instructed neither in knowledge nor in teaching but he now resolved to make up for his deficiencies in both respects. About this time he met with some of Pestalozzi's writings, which so deeply impressed him that he determined to go to Yverdun, and study Pestalozzism on the spot. He accomplished his purpose, and lived and worked for two years with Pestalozzi. His experience at Yverdun impressed him with the conviction that the science of Education had still to draw out from Pestalozzi's system those fundamental principles which Pestalozzi himself did not comprehend. "And therefore," says Schmidt,* "this gifted disciple of Pestalozzi supplemented and completed his system by advancing from the point which Pestalozzi had reached through pressure from without, to the innermost conception of man, and arriving at the thought of the true development and the essential conditions of the true culture of mankind." Feeling still his want of positive knowledge, Fröbel spent the next two or three years of his life at the Universities of Göttingen and Berlin. It was now, while he was for the first time earnestly engaged in study, that his views on Education gradually gained consistency and form. "Our greatest educators," he says, "even Pestalozzi himself not excepted, appear to me too crudely, empirically, capriciously, and therefore unscientifically, to allow themselves to be led away from nature and nature's laws; they do not appear, indeed, to recognise, honour, and cultivate the divinity of science." Again, he says, "I look upon the course of development which I find in my own thought, advancing from analysis to synthesis, as the course of development in every individual man."

It would only be tedious to relate the various preliminary experiences by which Fröbel—sometimes with few, sometimes with many pupils—sometimes under favourable, at other times under unfavourable circumstances—pursued his course, until the moment when at Blankenburg, near Rudolstadt, he established, about the year 1840, the school to which he first gave the name of Kindergarten. In this name he wished to embody two of his favourite theoretical notions:—the one, that education, as culture, has to do with children as human plants, which are to be surrounded with circumstances favourable to their free development, and to be trained by means suited to their nature; and the other, that a school for little children should have attached to it a garden, in which they may exercise their natural taste for flowers, and be not only the observers but the cultivators of plants. Fröbel, as well as his disciples of the present day, protest against the application of the name School to the Kindergarten, which is, in their view, a place for the development of the activities and capabilities of children before the usual school age begins. The Kindergarten proper is intended for children of between three and seven years of age. Its purpose is thus briefly indicated by himself:—"To take the oversight of children before they are ready for school life; to exert an influence over their whole being in correspondence with its nature; to strengthen their bodily powers; to exercise their senses; to employ the awakening mind; to make them thoughtfully acquainted with the world of nature and of man; to guide their hearts and souls in a right direction, and lead them to the Origin of all life and to union with Him."

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* Geschichte der Pädagogik, iv, 284.

You will have observed already that in this programme there is no mention made of reading, writing, and arithmetic; of grammar, geography, and history; of rules, precepts, or general propositions; not a word about books, nor even of instruction at all in its ordinary sense. Yet you will also have observed that there is ample provision for activity and energy of various kinds—activity of limbs, activity of the senses, activity of the mind, heart, and of the religious instinct. It is in this immense field of natural energies that the Fröbellian idea "lives, moves, and has its being." You will further see that the carrying out of this programme involves something very different in spirit and essence from the ordinary course of an English Infant School, to which children are often carried merely "to get them out of the way."

Having said at the commencement of this lecture that Fröbel as an educator begins at the very beginning, I ought now to add, that in his great work "On the Education of Man," he takes into consideration the circumstances of the child during the period which precedes the Kindergarten age, and gives many valuable hints to guide the mother, who is Nature's deputy and helper, for the first three years of its life. As, however, to describe his views and plans in relation to that period would occupy us too long, I confine myself to the Kindergarten age. In Fröbel's opinion, the mother who consults the true interests of her child will, when he is three years old, give him up to the governess of the Kindergarten.

In this respect he differed from Pestalozzi, who thought that the mother, as the natural educator of the child, ought to retain the charge of him up to his sixth or seventh year. It is easy to see that, if this opinion be acted on, the education of the child will be restricted to the experience of the family circle. According to Fröbel this basis is too narrow. The family circle does not generally afford a sufficient scope for the development of those activities which, in their combination, constitute life. A system of education, therefore, founded on this narrow basis, does not really prepare the child for that inter-communion and constant intercourse with his fellow-men, of which life, broadly interpreted, consists. Fröbel, moreover, doubts, with much reason, whether mothers generally are qualified for the task assigned them by Pestalozzi, and points out that, if they are not, the child must suffer from their incompetence, even if he lose nothing through neglect occasioned by the demands of the household upon their time and strength. He therefore insists that, in order to furnish children with opportunities for displaying and developing all their natural capabilities, they must be brought together in numbers. The mutual action and reaction of forces and activities thus necessitated present, in fact, a miniature picture of the larger life to which they are destined. The passions, emotions, sufferings, and desires of our common humanity have here both scope and occasion for their fullest manifestation; while the intellectual powers, under the stimulus of inexhaustible curiosity and of aptitude for imitation and invention, are excited to constant action. At the same time the bodily powers—hands, feet, muscles, senses—under the influence and impulse of companionship, are more actively exercised, and the health of the constitution thereby promoted, while a larger and better opportunity is supplied for learning the resources of the mother-tongue. The Kindergarten, therefore, for its full development, requires the bringing together of children in numbers, in order that they may not only be educated, but educate themselves and each other; and requires, moreover, the surrender, on the mother's part, of the charge which she is, as a rule, unfitted to discharge, into the hands of those who understand and are trained for the work. This, then, is one of the cases in which Fröbel takes a crude and unconditioned notion of Pestalozzi's, and organizes it into a clear and consistent rule of action.

But we are still only standing on the circumference of Fröbel's expansive idea of education. Let us now enter within the circle and make our way to the centre. In order to do this effectually let us form a conception of the genesis of the idea—an idea not less distinguished by its originality as a theory than by its far extending practical issues.

Let us imagine to ourselves Fröbel, after profoundly studying human nature in general, both in books and life, and minutely observing and studying the nature of children, in possession of a large theoretical knowledge of education, as a means for making the best of that nature, and, at the same time, impressed with a sorrowful conviction, founded partly on his own experience, that most of what is called education is not only unnatural, but anti-natural, as failing to reach the inner being of the child, and even counteracting and thwarting its spontaneous development,—let us, I say, imagine Fröbel, thus equipped, as an observer taking his place amidst a number of children disporting themselves in the open air without any check upon their movements.

After looking on the pleasant scene awhile, he breaks out into a soliloquy:—"What exuberant life! What immeasurable enjoyment! What unbounded activity! What an evolution of physical forces! What a harmony between the inner and the outer life! What happiness, health, and strength! Let me look a little closer. What are these children doing? The air rings musically with their shouts and joyous laughter. Some are running, jumping, or bounding along, with eyes like the eagle's bent upon its prey, after the ball which a dexterous hit of the bat has sent flying among them; others are bending down towards the ring filled with marbles, and endeavouring to dislodge them from their position; others are running friendly races with their hoops; others, again, with arms laid across each other's shoulders, are quietly walking and talking together upon some matter in which they evidently have a common interest. Their natural fun gushes out from eyes and lips. I hear what they say. It is simply expressed, amusing, generally intelligent, and often even witty. But there is a small group of children yonder. They seem eagerly intent on some object. What is it? I see one of them has taken a fruit from his pocket. He is showing it to his fellows. They look at it and admire it. It is new to them. They wish to know more about it,—to handle, smell, and taste it. The owner gives it into their hands; they feel and smell, but do not taste it. They give it back to the owner, his right being generally admitted. He bites it, the rest looking eagerly on to watch the result. His face shows that he likes the taste; his eyes grow brighter with satisfaction. The rest desire to make his experience their own. He sees their desire, breaks or cuts the fruit in pieces, which he distributes among them. He adds to his own pleasure by sharing in theirs. Suddenly a loud shout from some other part of the ground attracts the attention of the group, which scatters in all directions. Let me now consider. What does all this manifold movement—this exhibition of spontaneous energy—really mean? To me it seems to have a profound meaning.

"It means—

"(1) That there is an immense external development and expansion of energy of various kinds—physical, intellectual, and moral. Limbs, senses, lungs, tongues, minds, hearts, are all at work—all co-operating to produce the general effect.

"(2) That activity—doing—is the common characteristic of this development of force.

"(3) That spontaneity—absolute freedom from outward control—appears to be both impulse and law to the activity.

"(4) That the harmonious combination and interaction of spontaneity and activity constitute the happiness which is apparent. The will to do prompts the doing; the doing reacts on the will.

"(5) That the resulting happiness is independent of the absolute value of the existing cause. A bit of stick, a stone, an apple, a marble, a hoop, a top, as soon as they become objects of interest, call out the activities of the whole being quite as effectually as if they were matters of the greatest intrinsic value. It is the action upon them—the doing something with them—that invests them with interest.

"(6) That this spontaneous activity generates happiness, because the result is gained by the children's own efforts, without external interference. What they do themselves and for themselves, involving their own personal experience and therefore exactly measured by their own capabilities, interests them. What another, of trained powers, standing on a different platform of advancement, does *for them*, is comparatively uninteresting. If such a person, from whatever motive, interferes with their spontaneous activity, he arrests the movement of their forces, quenches their interest, at least for the moment; and they resent the interference.

"Such, then, appear to be the manifold meanings of the boundless spontaneous activity that I witness. But what name, after all, must I give to the totality of the phenomena exhibited before me. I must call them Play. Play, then, is spontaneous activity ending in the satisfaction of the natural desire of the child for pleasure—for happiness. *Play is the natural, the appropriate* *business and occupation of the child left to his own resources.* The child that does not play is not a perfect child. He wants something—sense-organ, limb, or generally what we imply by the term health—to make up our ideal of a child. The healthy child plays—plays continually—cannot but play.

"But has this instinct for play no deeper significance? Is it appointed by the Supreme being merely to fill up time?—merely to form an occasion for fruitless exercise?—merely to end in itself? No! I see now that it is the constituted means for the unfolding of all the child's powers. It is through play that he learns the use of his limbs, of all his bodily organs, and with this use gains health and strength. Through play he comes to know the external world, the physical qualities of the objects which surround him, their motions, actions, and reaction upon each other, and the relation of these phenomena to himself; a knowledge which forms the basis of that which will be his permanent stock for life. Through play, involving associate-ship and combined action, he begins to recognise moral relations, to feel that he cannot live for himself alone, that he is a member of a community whose rights he must acknowledge if his own are to be acknowledged. In and through play, moreover, he learns to contrive means for securing his ends; to invent, construct, discover, investigate, to bring by imagination the remote near, and further, to translate the language of facts into the language of words, to learn the conventionalities of his mother tongue. Play, then, I see, is the means by which the entire being of the child develops and grows into power, and, therefore, does not end in itself.

"But an agency which effects results like these is an educating agency; and *play* therefore *resolves itself into education;* education which is independent of the formal teacher, which the child virtually gains for and by himself. This, then, is the outcome of all that I have observed. The child, through the spontaneous activity of all his natural forces, is really developing and strengthening them for future use; he is working out his own education.

"But what do I, who am constituted by the demands of society as the formal educator of these children, learn from the insight I have thus gained into their nature? I learn this—that I must educate them in conformity with that nature. I must continue, not supersede, the course already begun; my own course must be based upon it. I must recognise and adopt the principles involved in it, and frame my laws of action accordingly. Above all, I must not neutralize and deaden that spontaneity which is the mainspring of all the machinery; I must rather encourage it, while ever opening new fields for its exercise, and giving it new directions. Play, spontaneous play, is the education of little children; but it is not the whole of their education. Their life is not to be made up of play. Can I not, then, even now, gradually transform their play into work, but work which shall look like play,—work which shall originate in the same or similar impulses, and exercise the same energies as I see employed in their own amusements and occupations? Play, however, is a random, desultory education. It lays the essential basis, but it does not raise the superstructure. It requires to be organized for this purpose, but so organized that the superstructure shall be strictly related and conformed to the original lines of the foundation.

"*I see that these children delight in movement*;—they are always walking or running, jumping, hopping, tossing their limbs about, and, moreover, they are pleased with rhythmical movement. I can contrive motives and means for the same exercise of the limbs, which shall result in increased physical power, and consequently health—shall train the children to a conscious and measured command of their bodily functions, and at the same time be accompanied by the attraction of rhythmical sound through song or instrument.

"*I see that they use their senses*; but merely at the accidental solicitation of surrounding circumstances, and therefore imperfectly. I can contrive means for a definite education of the senses, which shall result in increased quickness of vision, hearing, touch, &c. I can train the purblind eye to take note of delicate shades of colour, the dull ear to appreciate minute differences of sound.

"*I see that they observe*; but their observations are for the most part transitory and indefinite, and often therefore comparatively unfruitful. I can contrive means for concentrating their attention by exciting curiosity and interest, and educate them in the art of observing. They will thus gain clear and definite perceptions, bright images in the place of blurred ones, will learn to recognise the difference between complete and incomplete knowledge, and gradually advance from the stage of merely knowing to that of knowing that they know.

"*I see that they invent and construct*; but often awkwardly and aimlessly. I can avail myself of this instinct, and open to it a definite field of action. I shall prompt them to invention, and train them in the art of construction. The materials I shall use for this end will be simple; but in combining them together for a purpose, they will employ not only their knowledge of form, but their imagination of the capabilities of form. In various ways I shall prompt them to invent, construct, contrive, imitate, and in doing so develop their nascent taste for symmetry and beauty.

"And so in respect to other domains of that child-action which we call play, I see that I can make these domains also my own. I can convert children's activities, energies, amusements, occupations, all that goes by the name of play, into instruments for my purpose, and therefore transform play into work. This work will be education in the true sense of the term; the conception of it such as I have gained from the children themselves. They have taught me how I am to teach them."

And now Fröbel descends from the imaginary platform where he has been holding forth so long. I have endeavoured, in what has preceded, to give you as clear a notion as I could of the genesis of his root-idea; and I may say, in passing, that it is well for you that I, and not Fröbel himself, have been the expositor; for anything more cloudy, involved, obscure, and mystical than Fröbel's own style of writing can hardly be conceived. It has been my task to keep the clouds out of sight, and admit upon the scene only the genial light which breaks out from between them.

Having thus brought before you what I may call Fröbel's statical theory of the education of little children of from three to seven years of age, I now proceed to the means by which it was made dynamical—that is, exhibited in practice. But before I do so, I will add to the particulars of his life, that after founding the Kindergarten at Blankenburg, and carrying it on for some years, he left it to establish and organize others in various parts of Germany, and at last died at Liebenstein, June 21, 1852. Thus passed away a man of remarkable insight into human nature, and especially into children's nature—of wonderful energy of character when once roused to action—of all-pervading philanthropy—a man, I repeat, to whom alone is due the fruitful and original conception of availing himself, as a teacher, of the spontaneous activities of children as the means of their formal education, and therefore of laying on this foundatoin the superstructure of their physical, intellectual, and moral life.

And now I must endeavour to give some notion of the manner in which Fröbel reduced his theory to practice. In doing this, the instances I bring forward must be considered as typical. If you admit—and you can hardly do otherwise—the reasonableness of the theory, as founded on the nature of things, you cannot doubt that there is some method of carrying it out. Now a method of education involves many processes, all of which must represent more or less the principles which form the basis of the method. It is quite out of my power, for want of time, to describe the various processes which exhibit to us the little child pursuing his education by walking to rhythmic measure, by gymnastic exercises generally, learning songs by heart and singing them, practising his senses with a definite purpose, observing the properties of objects, counting, getting notions of colour and form, drawing, building with cubical bricks, modelling in wax or clay, braiding slips of variously coloured paper after a pattern, pricking or cutting forms in paper, curving wire into different shapes, folding a sheet of paper, and gaining elementary notions of geometry, learning the resources of the mother-tongue by hearing and relating stories, fables, &c., dramatizing, guessing riddles, working in the garden, &c. &c. These are only some of the activities naturally exhibited by young children, and these the teacher of young children is to employ for his purpose. As, however, they are so numerous, I may well be excused for not even attempting to enter minutely into them. But there is one series of objects and exercises therewith connected, expressly devised by Fröbel to teach the art of observing, to which, as being typical, I will now direct your attention. He calls these objects, which are gradually and in orderly succession introduced to the child's notice, Gifts—a pleasant name, which is, however, a mere accident of the system: they might equally well be called by any other name. As introductory to the series, a ball made of wool, of say a scarlet colour, is placed before the baby. It is rolled along before him on the table, thrown along the floor, tossed into the air, suspended from a string and used as a pendulum, spun round on its axis, made to describe a circle in space, &c. It is then given into his hand: he attempts to grasp it, fails; tries again, succeeds; rolls it along the floor himself, tries to throw it, and, in short, exercises every power he has upon it, always pleased, never wearied in *doing* something or other with it. This is play, but it is play which resolves itself into education. He is gaining notions of colour, form, motion, action, and re-action, as well as of muscular sensibility. And all the while the teacher associates words with things and actions, and by constantly employing words in their proper sense and in the immediate presence of facts, initiates the child in the use of his mother-tongue. Thus, in a thousand ways, the scarlet ball furnishes sensations and perceptions for the substratum of the mind, and suggests fitting language to express them; and even the baby appears before us as an observer, learning the properties of things by personal experience.

Then comes the first gift. It consists of six soft woollen balls of six different colours, three primary and three secondary. One of these is recognised as like, the others as unlike, the ball first known. The laws of similarity and discrimination are called into action; sensation and perception grow clearer and stronger. I cannot particularise the numberless exercises that are to be got out of the various combinations of these six balls.

The second gift consists of a sphere, cube, and cylinder, made of hard wood. What was a ball before is now called a sphere. The different material gives rise to new experiences; a sensation, that of hardness, for instance, takes the place of softness; while varieties of form suggest resemblance and contrast. Similar experiences of likeness and unlikeness are suggested by the behaviour of these different objects. The easy rolling of the sphere, the sliding of the cube, the rolling as well as sliding of the cylinder, illustrate this point. Then the examination of the cube, especially of its surfaces, edges, and angles, which any child can observe for himself, suggest new sensations and their resulting perceptions. Moreover, notions of space, time, form, motion, relativity in general, take their place in the mind, as the unshaped blocks which, when fitly compacted together, will lay the firm foundation of the understanding. These elementary notions, as the groundwork of mathematics, will be seen to have their use as time goes on.

The third gift is a large cube, which is divisible into eight small ones. The form is recognised as that of the cube before seen; the size is different. But the new experiences consist in notions of relativity—of the whole in its relation to the part, of the parts in their relation to the whole; and thus the child acquires the notion and the names, and both in immediate connection with the sensible objects, of halves, quarters, eighths, and of how many of the small divisions make one of the larger. But in connection with the third gift a new faculty is called forth—imagination, and with it the instinct of construction is awakened. The cubes are mentally transformed into bricks: and with them building commences. The constructive faculty suggests imitation, but rests not in imitation. It invents, it creates. These eight cubes, placed in a certain relation to each other, make a long seat, or a seat with a back, or a throne for the Queen; or, again, a cross, a doorway, &c. Thus does even play exhibit the characteristics of art, and "conforms (to use Bacon's words) the outward show of things to the desires of the mind;" and thus the child, as I said before, not merely imitates, but creates. And here, I may remark, that the mind of the child is far less interested in that which another mind has embodied in ready prepared forms, than in the forms which he conceives, and gives outward expression to, himself. He wants to employ his own mind, and his whole mind, upon the object, and does not thank you for attempting to deprive him of his rights.

The fourth, fifth, and sixth gifts consist of the cube variously divided into solid parallelopipeds, or brick-shaped forms, and into smaller cubes and prisms. Observation is called on with increasing strictness, relatively appreciated, and the opportunity afforded for endless manifestations of constructiveness. And all the while impressions are forming in the mind which, in due time, will bear geometrical fruits, and fruits, too, of æsthetic culture. The dawning sense of the beautiful, as well as of the true, is beginning to gain consistency and power.

I cannot further dwell on the numberless modes of manipulation of which these objects are capable, nor enter further into the groundwork of principles on which their efficiency depends.

It is needless to say that various objections have been made to Fröbel's method, especially by those whose ignorance of the laws of mental development disqualifies them, in fact, from giving an opinion on it at all, and also by others, whose earnest work at various points of the superstructure so absorbs their energies that they have none to spare for considering the foundation. But even among those who have considered the working of mental laws, though in many cases from the standpoint of a favourite theory, there are some who still doubt and object. I will attempt to deal with one or two of their objections. It is said, for instance, without proof, that we demand too much from little children, and, with the best intentions, take them out of their depth. This might be true, no doubt, if the system of means adopted had any other basis than the nature of the children; if we attempted theoretically, and without regard to that nature, to determine ourselves what they can and what they cannot do; but when we constitute spontaneity as the spring of action, and call on them to do that, and that only, which they can do, which they do of their own accord when they are educating themselves, it is clear that the objection falls to the ground. The child who teaches himself never can go out of his depth; the work he actually does is that which he has strength to do; the load he carries cannot be fitted to the shoulders that bear it, for he has gradually accumulated its contents by his own repeated exertions. The increasing burden is, in short, the index and result of his increasing powers, and commensurate with them. The objector in this case, in order to gain even a plausible foothold for his objection, must first overthrow the radical principle, that the activities, amusements, and occupations of the child, left to himself, do indeed constitute his earliest education, and that it is an education which he virtually gives himself.

Another side of this objection, which is not unfrequently presented to us, derives its plausibility from the assumed incapacity of children. The objector points to this child or that, and denounces him as stupid and incapable. Can the objector, however, take upon himself to declare that this or that child has not been made stupid even by the very means employed to teach him? The test, however, is a practical one: Can the child play? If he can play, in the sense which I have given to the word, he cannot be stupid. In his play he employs the very faculties which are required for his formal education. "But he is stupid at his books." If this is so, then the logical conclusion is, that the books have made him stupid, and that you, the objector, who have misconceived his nature, and acted in direct contradiction to it, are yourself responsible for his condition.

"But he has no memory. He cannot learn what I tell him to learn." No memory! cannot learn! Let us put that to the test. Ask him about the pleasant holiday a month ago, when he went nutting in the woods. Does he remember nothing about the fresh feel of the morning air, the joyous walk to the wood, the sunshine which streamed about his path, the agreeable companions with whom he chatted on the way, the incidents of the expedition, the climb up the trees, the bagging of the plunder? Are all these matters clean gone out of his mind? "Oh, no, he remembers things like these." Then he has a memory, and a remarkably good one. He remembers, because he was interested; and if you wish him to remember your lessons, you must make them interesting. He will certainly learn what he takes an interest in.

I need not deal with other objections. They all resolve themselves into the category of ignorance of the nature of the chil. When public opinion shall demand such knowledge from teachers as the essential condition of their taking in hand so delicate and even profound an art as that of training children, all these objections will cease to have any meaning.

As I have doubtless appeared throughout this lecture as not merely the expositor but the advocate of Fröbel's principles, it is only right to say that this has arisen from the fact that, without knowing it, I have been myself for many years preaching from the same text. My close acquaintance with Fröbel's theory, and especially with his root-idea, is comparatively recent. But when I had studied it as a theory, and witnessed something of its practice, I could not but see at once that I had been throughout an unconscious disciple of the eminent teacher. The plan of my own course of lectures on the Science and Art of Education was, in fact, constructed in thought, before I had at all grasped the Fröbellian idea; and was, in that sense, independent of it. But every one who hears my lectures—which are founded on the natural history of the child—must be at once aware that Fröbel's notions and mine are virtually the same.*

I should be glad to think that I have by this lecture either kindled an interest hitherto unfelt in the Kindergarten, or supplied those who felt the interest before with arguments to justify it.

NOTE TO LECTURE X.

Fröbel's system is extending rapidly in Germany, especially in the north, mainly through the efforts of a Union (Der allgemeine Erziehungsverein) formed at Dresden for the purpose. This Society publishes every month a magazine (Die Erziehung der Gegenwart), which contains interesting essays on Fröbel's principles, and reports its proceedings. There are flourishing Kindergartens in Hamburg, Brunswick, Berlin, Dresden, Weimar, Gotha, Cassel, and many other towns; and, in some of these, institutions for the training of governesses. Those under the direction of Professor Hoffmann, in Hamburg; Dr. Marquart, in Dresden; and Professor Köhler in Gotha, are especially noted. In the United States the system is gaining ground, chiefly through the enthusiastic exertions of Miss Elizabeth Peabody, whose little magazine (the Kindergarten Messenger) well deserves support. In England, there are good Kindergartens at Manchester, under Miss Opple and Miss Snell; and that of Miss Doreck in London (63, Kensington Gardens Square) is, and deserves to be, eminently successful.

Works describing the system are already very numerous. Among them may be specially named Goldammer's "Der Kindergarten" (Berlin, 1872), which contains a valuable contribution of forty-four pages by the Baroness Marenholtz-Bülow, a most earnest and enlightened promoter of the system, whose clear insight into its principles and practice constitute her, on the whole, its best expositor. She has also published several separate works upon it. Professor Köhler's book, "Die Praxis des Kindergartens" (Weimar, 1871-72), is very elaborate and very excellent. An important work entitled "Friedrich Fröbel: Die Entwickelung seiner Erziehungsidee in seinem Leben," by Alexander Bruno Hanschmann, has also just appeared. Professor Wiebe's (of Hamburg) "Paradise of Childhood," published originally in America in English, is the work of an enthusiastic and every way competent expositor of the system. In English, too, and published in England, there is Ronge's "Practical Guide to the Kindergarten," of which a fifth edition has lately been announced at the reduced price of 5*s*. by Messrs. Myers and Co., of 15, Berners Street, of whom also may be had Hoffman's "Kindergarten Toys and how to use them." At Messrs. Myers' establishment, all the Fröbellian "gifts," and appliances of every kind, may be obtained.

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* See "The Science and Art of Education," a Lecture delivered at the College of Preceptors on the 20th January, 1874." "Collected Works," Vol. I., page 163.

⁂ Since the above was in type, the writer has visited the principal Kindergartens in Hamburg, Berlin, Dresden, Weimar, Gotha, and Eisenach. He has thus had abundant opportunities for judging of the spirit which pervades these institutions, and of the machinery by which they are carried on. He has watched the children at their "play," and at the "work" which looks like play; have seen them marching, dancing, dramatising, clapping with their hands, beating time with their feet. He has heard their songs and their shouts of pleasure. But what has most impressed him is the earnest interest on the part of the little ones, which has characterized all their proceedings. Without pretending to admire all that he saw doing by the teachers (amongst whom different degrees of skill and efficiency were to be expected), he has no hesitation in expressing his decided opinion that the practical adoption of Fröbel's principles trains the natural powers of children in a natural way, a way in which profit and pleasure are united, and tends continually to an all-sided culture of their whole being. In the course of his observation, he also became convinced that Kindergarten governesses require an especially sound training themselves; that intelligence, good sense, and knowledge of the nature of children, are qualifications indispensable to their entire success. He could not but see that, in some instances, Fröbel's radical principles had not laid hold of the teacher, and therefore that there was some tendency towards mere mechanism. He thinks, indeed, generally, that there is a disposition to do too much for the children; to ignore, to some extent, their power of doing for themselves.

One of the writer's special objects was to see how the junction between the Kindergarten and the School (properly so-called) was effected: how the pupils of the former deported themselves under the stricter discipline of the latter. Nowhere did he find this connection so satisfactorily carried out as in the great institution of Professor Köhler, at Gotha. This institution embraces (1) a Kindergarten; (2) a school for girls from six to fourteen years of age; (3) a High School for girls (Fortbildungschule); (4) a training school for Kindergarten Mistresses; (5) a Training School for women teachers in general.

On the whole, his impressions, as to the working of the Kindergarten system in Germany, are most favourable, while at the same time he believes that even more will be made of it in proportion as the teachers become more consciously imbued with the principles of the master. The objections urged against the system by some of its opponents—objections rather against its actual practice in some instances than against the theory itself—are not entirely without foundation. In short, there must be more working in the spirit, and less by the letter, before Fröbel's great distinctive idea is fully realized.[25]

JOSEPH JACOTOT.

1770–1840.

p. 135.

LECTURE XI.

JACOTOT: HIS LIFE AND SYSTEM OF UNIVERSAL INSTRUCTION.*

Thirty-seven years ago, being at that time enthusiastically interested in the profession to which I had dedicated myself, and eager to become acquainted with anything which could improve my own practice, I first heard of Jacotot's system of universal instruction (*Enseignement Universel*). The friend who introduced the subject to my notice spoke of the remarkable results of the system, both in regard to economy of time and actual attainments—results which had been verified on the spot by enquirers every way competent and impartial. Foreign languages, it was said, had been learnt by children of tender years in a few months; the mother tongue so far mastered in a very short space of time, that the pupils wrote easily and elegantly on a great variety of subjects; corresponding achievements had been made in music and drawing, and, indeed, in every subject to which the method had been applied. I heard at the same time, that these results had not been gained by cramming—by stuffing the pupil artificially with the mental food which others had minced up for him—but by the exercise of his own powers of mind; that the excitement and development of the pupil's own native capacity by easy and natural means, constituted, in fact, the glory and boast of the method. Pursuing my inquiries, I learnt that M. Jacotot himself was a man of remarkable energy of character; that his works on the system were distinguished by great originality of mind; that he was, moreover, singularly endowed with heart as well as head; and had so developed his ideas as to make them applicable to the instruction of the poor as well as of the rich, and hence that he had covered the somewhat large generality of the title "*Universal Instruction*" by the still larger pretensions of "*Intellectual Emancipation.*" I heard further the extravagant eulogiums uttered by the partisans of the method on him whom they called "the founder"—a man who, as his friends maintained, "had applied a vast genius and profound learning to the development of a principle as much superior to the discoveries of Newton as mind is superior to matter;" "a man, in short, who deserved"—such was their language—"to be placed at *the head of all the benefactors of the human race;*" and lastly, I became acquainted with the fact, that at that moment deputations from the Governments of the Netherlands and of France had been sent to Louvain to report upon the method; that numerous parsonages of high rank and authority, as Gen. Lafayette, Casimir Perrier, Counts de Lasteyrie and Montlosier, the Duc de Levis, Dr. Broussais, De Beriot the violinist, &c., &c., had warmly taken it up; that hosts of schoolmasters, teachers, and amateurs in education were daily visiting Louvain to witness and discuss the method and its alleged results; that schools modelled on it were spreading rapidly over France and the Netherlands, so that (as stated in the Foreign Quarterly Review of February, 1830) almost every town and province in the north of those countries possessed either an establishment upon the principle, or one or more instructors.

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* College of Preceptors, evening meeting, May 15, 1867

With all these incentives to enthusiasm, it is not very wonderful that I became deeply interested in the method, made experiments with it; studied Jacotot's works; rushed into print myself; sent my little pamphlet to all the leading men of the day interested in education; gave courses of lectures upon the system to crowded audiences; corresponded with Jacotot; and became generally recognised as an authority on the pretensions of the "Universal Instruction." My pamphlet was flatteringly reviewed in the "Foreign Quarterly Review," the "Quarterly Journal of Education," the "Monthly Repository," and a dozen other publications. I received and answered hundreds of letters on the subjects, and furnished explanations, directions, arguments, illustrations, by the thousand, to all sorts of enquirers, doubters, sneerers, and enthusiasts—to those resolved to be, and to those resolved not to be, convinced.

It may be as well to say, at the outset, that further experience of the working of the method, as a machine for instruction, considerably abated my estimate of it as a whole. I even rebelled at the very commencement against some of its requirements, and hold, at the present moment, that Jacotot himself failed (as is not unfrequently the case with great discoverers) in the application of some of his own principles, and to such a degree as palpably to defeat the very object he had in view. Still, being one of those who think that "there is some soul of goodness" even "in things evil" (though I do not place Jacotot's method in such a category), "would men observingly distil it out," and that moreover the very failures of eminent men—their *splendida vitia*—are often more instructive than the peddling successes, the dull unvaried mediocrity of those who are "content to dwell in decencies for ever," I have no hesitation in bringing before you some account of a system of instruction which, although now virtually defunct, is, I believe, as far as principles are concerned, destined to rise again. The soul of it will, some day, be infused into a new body, to be succeeded, perhaps, by another and another educational metempsychosis, as we advance in our conceptions of the true relation between teaching and learning.

But you will be interested in hearing a few particulars of Jacotot's personal history.

Joseph Jacotot was born of rather humble parentage, at Dijon, on the 4th of March, 1770, and died at Paris on the 30th of July, 1840. While yet a boy at the college of his native town, he seems to have constituted himself a pupil of the *Emancipation Intellectuelle*, groping as it were towards the light which he was afterwards to reduce to a focus. We are told that he was what teachers, especially dull ones, often look upon as an "*objectionable*" child. He was one of those children who "wanted to *know*, you know," why this thing was so, why that other thing was not. He showed little deference, I am afraid, to the formal prelections of his teachers. Not that he was idle: far from that. We are told that he rejoiced greatly in the acquisition of all kinds of knowledge that could be gained by his own efforts, while he steadily resisted what was imposed on him by authority; admitted nothing which he could venture to contest; rejecting whatever he could not see clearly; refusing to learn by heart grammars, or, indeed, any digests of conclusions made by others; but at the same time eagerly committing to memory passages of authors which pleased him; thus spontaneously preferring the society of "the masters of the grammarians" to that of the grammarians themselves. Even as a child nearly everything he knew he had taught himself.

Such was, however, the success of the Jacototian principle, which he had instinctively grasped, that at nineteen years of age he received the diploma of Docteur-ès-lettres, and was appointed Professor of Humanities—*i.e.*, of Grammar, Rhetoric, Composition, &c.—at the college where he had been, but a short time before, a pupil. He afterwards studied law, and became an avocat at the French bar. At twenty-five years of age, such was his profound mathematical and scientific knowledge that we find him appointed

Sub-Director of the Polytechnic School. Some years after, he appears as Professor of "the Method of Sciences" at Dijon, a post of high distinction; and whilst there engaged we obtain a glimpse of the "Enseignment Universel" in embryo. His method of teaching was looked upon as very original. Instead of pouring forth a flood of information on the subject under attention from his own ample stores—explaining everything, and thus too frequently superseding, in a great degree, the pupil's own investigation of it—Jacotot, after a simple statement of the subject, with its leading divisions, boldly started it as a quarry for the class to hunt down, and invited every member to take part in the chase. All were free—as free as he was himself—to worry and bait the question, to make every possible objection, to interrogate the objector in his turn, to ask for facts as the basis of every argument, to repudiate mere didactic authority. During this discussion the teacher confined himself to asking questions, to suggesting a fresh scent now and then, to requiring clear statements and mutual courtesy; but of teaching in the old and favourite sense of the term—*i.e.*, of communicating out of the fulness of the teacher in condescension to the intellectual feebleness and ignorance of the pupil—there was none. The Professor used to close the debate by a careful *resumé* of the arguments that had been adduced and the facts arrived at. I will not stay to discuss the merits of this plan now, but invite you to notice that the object of it was not to pre-occupy them with his views or judgments; but to stimulate them to form their own, to convince them by experience that their profit in study depended on themselves, not upon anything that another could do for them—that true strength came from the assiduous exercise of their own powers—that their teacher was a friend and fellow-labourer in the field, who had made the journey before, and therefore knew the difficulties of the way, but who knew as well as they did that he could not if he would, and certainly would not if he could, supersede those exertions which were to them the very means to the end that they had in view. To whatever may be said theoretically, and on a cursory view, against this method of conducting a class of young men, must be opposed the fact that it was eminently successful.*

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* A very interesting experiment in teaching geometry, exactly similar in spirit to the above, is described in Dr. Tyndall's Lecture "On the Study of Science," delivered at the Royal Institution in 1854. The eminent Professor tells us that, when engaged in early life in teaching mathematics at a school, he "withdrew the boys from the routine of the book, and appealed to their self-power;" that "the consciousness of self-power, thus awakened, was of immense

The Professor's room was crowded with enthusiastic pupils; the results were sound in point of attainments, and the process valuable as a mental discipline; and Jacotot received the express thanks of the Minister of State, Fourcroy, the chemist, who then superintended the department of Education in France, for his services. He adopted the same plan when afterwards engaged as Professor of Ancient and Oriental Languages, and with the same success. For many years he was thus engaged, taking for a time also the chairs of pure and transcendental mathematics and Roman law, in which, as in so many other subjects, he displayed profound knowledge, and singular sagacity and power as a teacher.

As it is with the educational life of Jacotot we are mainly concerned, I will simply state, without entering into detail, that the political troubles of his country affected him personally. He had been a strenuous opponent of the Bourbon interests—too conspicuously so to be able, at the restoration, to retire into obscurity; and he was therefore obliged to quit France, and, as a consequence, to give up all the emoluments which his eminent abilities had hitherto secured for him, and to depend for a living on precarious private lessons at Brussels. His remarkable powers as a teacher were at length recognised in his appointment by the Belgian Government, in 1818, when he was forty-eight years of age, to the professorship of the French Language and Literature at the University of Louvain. This was the epoch of the foundation of the "Enseignement Universel" in Belgium; and to the interesting details of the experiments he then carried on I now invite your close and serious attention.

The fame of the eminent Professor had preceded him, and consequently he was received with great *éclat*. His eloquent inaugural discourse excited an enthusiasm, an eye-witness informs us, like that which usually greeted Talma on the stage. When, however, the practical business of instructing the class began, serious difficulties were found in the fact that the teacher and the greater proportion of his pupils were unable to understand each other. About a fourth of the class, consisting of young Belgians, were pretty well acquainted with French; another fourth had a slight knowledge; but the rest knew nothing of it. Their native tongue was Flemish, which, on the other hand, was entirely unknown to Jacotot. What was to be done? It occurred to him to establish the required communication by putting into their hands

value:" that, "animated by it, the progress of the class was truly astonishing," &c. This was a Jacototian lesson in every respect. [See also Note 26 at end].

Fénélon's "Télémaque," with a Dutch translation in view on the opposite page—directing them, through an interpreter, to commit to memory the French text, and to gather the meaning from the version that accompanied it. The young men applied themselves vigorously to the task, and very soon mastered, in this way, half the first book—about half-a-dozen pages. They were then told to repeat very frequently (*sans cesse*) all that they had learned, in order that no portion of it should be forgotten; to compare the two texts together, so as to gain a general notion of the points of resemblance and difference between the two languages; and then to read the remainder of the book very attentively, with the view of relating as well as they could, no matter how imperfectly at first, the substance of it in French. These processes were accompanied, almost from the first lesson, by continual and rigid interrogation on both the subject and the phraseology, the answers of the pupils being required to be in French, as well as they could, employing on every occasion the phraseology which they had acquired by the previous routine from their model book. Their success under this method was remarkable. In the course of a week or two these young Flemings, who had been entirely ignorant of French, began to understand the Professor pretty well; and in proportion as they became familiar by repetition and composition with book after book of Télémaque, they spontaneously observed in their exercises the rules of orthography and grammar, until at length they learned to write, in a language not their own, better (as Jacotot somewhat extravagantly declared)—that is, with a more complete command of the force, correctness, and graces of style—than either himself or any of his professional colleagues. This remarkable result, gained apparently in utter defiance of the ordinary grammar and dictionary method, astonished all who witnessed it, though none but Jacotot observed the principles which had co-operated in producing it.

As this experiment, the method pursued in working it, the principles evolved in its development, and the results achieved, do, in fact, embody all, or nearly all, that is characteristic in Jacotot's Universal Instruction, I shall not apologise for dwelling upon it at some length.

During the progress of the experiment at Louvain, Jacotot had been struck with the consideration, that the attainments made by his pupils were *independent of*, and in no sense the consequence of, *his own knowledge of the subject*—that they had learned what they knew *entirely by the efforts of their own minds*,—and that, though working under his superintendence, they had been, *in fact, their own teachers.*

This conclusion appeared singular and new. For thirty years he had been engaged in instruction, and up to this time had believed not only that the explanations of the teacher were the very essence of teaching, but that his own explanations were the *sine quâ non* of his pupils' proficiency. The proof to the contrary was now, however, before his eyes; there could be no rational doubt upon the subject. He had explained nothing to his pupils, for the obvious reason that he was unacquainted with their language, and they with his. This barrier of mutual ignorance had hindered the usual free communication between a teacher and his pupils. That barrier, however, had plainly given way before the operation of the machinery set in motion by the teacher; and the pupils had learned French, though the teacher had not, in the usual acceptation of the term, taught it. But could other subjects be so taught? How far would the principle hold in respect to Latin and Greek? This question he proceeded to answer by teaching with the greatest success both these languages, on the same principle and by the same method as he had before adopted. Setting aside and counting as nothing his own large attainments in classics, he devoted himself altogether to the development of the pupil's mental powers and resources—firmly resolved in no case to supersede the natural exercise of the pupil's own mind by the needless interposition of his own factitious help. "I am," he would have said, "to be the guide and friend, not the *bearer*, of my pupil. The journey we are to make together he must make on his own legs, not mine." "Use legs and have legs," that is the maxim for our practice; not use mine that he may gain the free use of his own; but so use his own now, that by labour and discipline they may become strong, robust, and well-developed, and thus be prepared for the ensuing journey of life. As his friend, I am to show thorough sympathy with him; I must enter into his various difficulties—I must bear them with him—I must give him the encouraging smile, the inspiriting word—I must train him to endure fatigue by my own example, by sometimes keeping him long at the same exercise, by often whispering in his ear, "labor omnia vincit"—all these helps and comforts he requires from me as his guide and friend, as a fellow man; but I am more than ever convinced, that the sincerest proof of friendship for him is to throw him as much as possible on his own resources, to sustain, indeed, to the utmost of my ability, his will, his moral principles, his memory, against the volatility, thoughtlessness, faint-heartedness, folly, which, as he is a man in his moral weakness as well as in his mental strength, will certainly beset his path. These, and not want of capacity, are the true difficulties, and these he must learn to encounter and to overcome if he is ever to be a man." Fraught with such convictions as these, and acting on them, Jacotot taught his pupils Latin and Greek, without explanations, much more rapidly, much more soundly, with much more mental benefit to themselves, than he had ever done before, with explanations.

But he soon perceived that a principle of still more general application was involved in the experiment he had tried. "I have taught my pupils," thought he, "French, Latin, Greek, as if I were myself ignorant of those languages, though, in fact, I know them well. By following the same method I could surely teach them some subject that I *do not know*. To teach is to cause to learn; it is not necessarily to communicate to the pupil the teacher's knowledge. The progress of my pupil does not depend upon my attainments, but upon his own exertions. Without those exertions, my abilities, my accomplishments, whatever they may be, are absolutely useless to him. The method, then, if method it may be called, by which he really learns, is not mine, nor any one else's, but *his own*. Its consists, it must consist, in the energetic working of his own mind. If, then, the pupil is willing to learn, the master may teach *anything he pleases*—even what he does not know himself. In teaching drawing, for instance, what has the pupil mainly to do? To look attentively at an object; to observe especially the lines which represent its form, to copy them as nearly as he can; to compare the copy with the archetype, to take note of the errors committed; to repeat his first attempt many times, in order to eliminate successively the various faults detected! to reflect upon the relation between the various parts of the object copied, and from this reflection to derive rules of proportion, &c. &c. Now these elementary processes of drawing must be the pupil's own work. If the master performs them, this supersession of the pupil's efforts generally operates rather to his injury than to his advantage. What, then, has the master to do? To encourage the pupil's first attempts, however feeble and imperfect; to stimulate his flagging zeal; to train him to the habit of observation; to form in him the artist's eye, the artist's feeling, by urging constant comparison between his own work and the original; to get him to reflect on all that he does, and with reflection to combine incessant practice. This is the master's function in teaching drawing. Is this function easy to perform? Certainly not; but it is altogether independent of great attainments in art on the part of the teacher. It is one which I feel myself competent to discharge, though I am altogether ignorant of drawing as an art. I am resolved to try whether I cannot teach drawing." Jacotot made the attempt, and with the same success as had attended his experiments in teaching the subjects that he knew well. With undiminished reliance, not, as he would have said, on his own powers as a teacher, but on the *self-instructive* powers of his pupils, he next proceeded to teach, and in this case with even more remarkable success, music (not only practice, but composition of every kind), as well as the Dutch and Russian languages, of all which subjects he previously knew nothing. By experiments, almost infinitely varied, he at length satisfied himself that his method was applicable to every case—to every kind of learning, to every kind of pupil; that the human mind, when engaged in teaching itself any subject whatever, follows the same process, the same "method of investigation;" apprehends and comprehends, too, in the same way, whatever it really apprehends and comprehends; and he therefore gave to the method which he had discovered, and which recognised, and indeed was based upon, the principles already expounded, the title of *Universal Instruction* (*Enseignement Universel*). But this title did not cover all the generalization of which he thought the principles involved capable, and he therefore thus pursued his reasoning to a still higher point. "If," said he, "the mind can thus teach itself, and if all men can teach themselves whatever they *will*—whatever they find it *absolutely necessary* for them to learn, why should teachers persist in imposing on their pupils the yoke of explanations—of *stultifying* and *brutifying* explanations? Why should we any longer bear the slavery of those who are everlastingly explaining to us that we cannot learn, that we cannot think, without *their* explanations; of those who hinder rather than help the free and healthy action of the mind, which they pretend to foster and train up; who rail in the fair garden of knowledge, and declare that none can get admittance into it but those who borrow their key to the gate. Let us oppose their arrogant claims; let us demand freedom from their galling bonds; let us declare the great truth, that God, in making men, has made them capable of *learning for themselves, without the oral explanations of their fellow men;* that he has made *all men equally capable* of thus learning; and let us take this proposition as the basis of *Intellectual Emancipation* (*Emancipation Intellectuelle*)."

You will not be surprised to hear that, by the time our friend, the founder, had arrived at this transcendental apex of generalization, and looked from it around him, the view which met his eye, and the sounds which met his ear, were not particularly agreeable. Teachers of every grade were fiercely gesticulating or wildly yelling out their denunciations against the man who had declared that he could teach what he did not know—and had taught it. This was atrocious enough: but to declare further, that all men were endowed naturally with an equal capacity for learning, was more than flesh and blood could bear. The arsenal of abuse was plundered to furnish arms against the "charlatan," the "imposter," the "trickster," the "stupid," &c., who had pretended that explanations were unnecessary—that a man could learn without them—could teach himself what he wished to know. Jacotot's friends and disciples, on the other hand, shouted vociferously in his praise, and contradicted their opponents in the most energetic terms. In the midst of the uproar, Jacotot quietly said, or might have said, "My dear friends, don't be so noisy. My *principles* and *opinions* are not my *method.* Suppose that you can *prove*, which you cannot do, that explanations are necessary, that pupils cannot dispense with them,—that your explanations especially are necessary,—that your superiority to so many others is evidence of the inequality of intelligence, since it implies their comparative stupidity; suppose that your opinions—for, after all, your notions are only opinions as well as mine—are right and mine wrong; still the fact remains, that *I have taught what I do not know*, or, if you like it better, that many persons have learned with me what I do not know, and have, therefore, learned without explanations. I simply wish the public to know the fact, and to profit by this novel experience: to know that pupils of mine have learnt, without explanations, musical execution, composition, and even improvisation—drawing in all its branches, including painting from nature, —dead and living languages, including competition of the highest order in the mother tongue—and that they have accomplished these achievements in a shorter time than usual, and more efficiently: and why?—not because I know the subjects that I have taught, for *I do not*; but because the very circumstances in which we have been relatively placed, has rendered it necessary that my pupils should work for themselves, should rely upon their own resources and not on the knowledge and learning of the teacher. The process has made them *think*; and the *thinking* has produced the result." "But," continued Jacotot, "though I admit that my principles are not my method, yet I find some advantage in my opinions contrasted with the opposite. For instance, there is a poor man earnestly desirous of instruction for his child, but he has no money to spare to send him to school, and he cannot teach him (*i.e.*, he *believes* he cannot) because he is himself utterly ignorant—he cannot even read. Well, if he can be induced to believe in me—in my principles—and if he has an earnest will impelled by a loving heart, he can teach his child to read, though himself ignorant. And a mother can teach her child what she does not know herself; and if she is timid, and thinks herself unequal to the task, I will whisper in her ear, 'You are quite capable, as capable as any woman, as capable as any man. All intelligences are equal. You want nothing but an earnest will, working out the prompting of a fervent *love*.' She believes me, and succeeds. These are not ideal cases, but real ones. Whatever the principles may be, the results are facts. Proclaim, then, everywhere, especially for the sake of the poor, *Intellectual Emancipation*."

I have thus evolved before you the fundamental principles which constitute Jacotot's *system*, as distinguished from his *method*. There is a sort of logical completeness about it, which gained for it—I mean the system, remember—many adherents; but not a few investigators, myself among them, could not but see that at least as many were deterred as were allured by these dogmata. That a man could, under certain circumstances, teach what he did not actually know, might be, indeed is, perfectly true; and this fact proved, that no one can really do another's thinking, any more than his eating or walking, for him—but then, inasmuch as Jacotot, as fully as any man, recognised the importance of the teacher, the almost absolute necessity for his sympathy, his moral support, his co-operation with the mind of his pupil, the discovery that explanations are unnecessary, did not render it much more easy to find a good teacher. The combination of qualities embodied in that *rara avis* was somewhat different, on this view, from that usually required, but still it was not every one's endowment; and then, again, the fact that it was possible for a man, otherwise qualified, to teach what he did not know, was certainly no proof that ignorance was itself a good qualification for a teacher. And, indeed, Jacotot's own example was scarcely a case in point, inasmuch as he was himself a highly educated man, with a mind competent to encounter every kind of intellectual difficulty. I believe, then, that the constant iteration, by Jacotot and some of his enthusiastic disciples, of the assertion that a man could teach what he did not know, unaccompanied, as it often was, with the rationale which showed in what sense the assertion was true, did as much harm as good. It annoyed teachers of the old stamp, who felt the ground cut away from under their feet; it annoyed many parents who employed these teachers, and thought themselves fortunate in securing, as instructors for their children, men who thoroughly knew the subjects they professed; it puzzled and confounded the general public interested in education, by coming into direct collision with the popular notion of a teacher; and finally it no doubt, in some cases, encouraged men who had no other qualification whatever but their ignorance—supported *morally* by their impudence—to come forward and increase the number, already sufficiently large, of incompetent teachers.

Then, again, the enunciation of the dogma of equal intelligence —however logically deduced from his premises—made as many enemies as friends to the system. Though by no means new, it was a doctrine which had been heretofore confined to the speculations of philosophers. It was by Jacotot delivered over to those whom he considered as having more vital interest in it—the public in general. It appeared, however, to contradict almost everybody's experience; and as Jacotot himself allowed that, whether all minds had by nature an equal capacity for improvement or not, they were in fact different through the differing quantity of individual *will*, people in general saw no practical value in the dogma, even if it were true.

But it is now time that I should give you some idea of the *Method of Universal Instruction*, as distinguished from the *System of Intellectual Emancipation*. The latter I will now dismiss, and confine myself to the former. In a certain sense, the method is really represented in the experiment which I have detailed. The pupils learned a portion of Télémaque; added more daily, repeating at each lesson the matter previously acquired: reflected on the meaning; compared words, sentences, and paragraphs together; studied the connection between the thoughts and the language in which they were expressed; used the known as a key to the interpretation of the unknown; wrote remarks on the personages of the work, generalized on the facts, framed definitions of words by comparing passages together, distinguished between synonymous words, imitated some passages, paraphrased or amplified others, examined analogous or parallel thoughts, wrote analyses of particular chapters, related, either *vivâ voce* or in writing, the substance of a given page or any number of pages, wrote imaginary letters from one character to another, wrote or spoke imaginary speeches suited to different circumstances of the narrative; in short, in every possible way endeavoured to enter into the spirit of the author, and to understand his art, and at the same time to imitate it with a view to learn, by means of incessant practice, the resources of the language. Exercises of this kind, almost infinitely varied and yet ever preserving the spirit of unity by their connection with the one book, could hardly fail, it will be easily believed, to cultivate both the habit of thought and that of apt expression; while, at the same time, the results, however remarkable, appeared to be a natural fruit of the method pursued. When Jacotot was asked to express the method in a definite precept for the guidance of teachers, his answer was—*Il faut apprendre quelque chose et y rapporter tout le reste; i.e.*, the pupil must learn something, and refer to that all the rest. When further explanation was demanded, he would reply to this effect: (1.) LEARN—*i.e.*, learn so as to *know* thoroughly, perfectly, immoveably (*imperturbablement*)—as well six months or twelve months hence as now—SOMETHING—something which fairly represents the subject to be acquired, which contains its essential characteristics. (2.) REPEAT that "something" incessantly (*sans cesse*), *i.e.*, every day, or very frequently, from the beginning, without any omission, so that no part of it may be forgotten. (3.) REFLECT upon the matter thus acquired, so as by degrees to make it a possession of the mind as well as of the memory, so that, being appreciated as a whole, and appreciated in its minutest parts, what is as yet unknown may be referred to it, and interpreted by it. (4.) VERIFY, or test general remarks, *e.g.*, grammatical rules, &c., made by others, by comparing them with the facts (*i.e.*, the words and phraseology) which you have learnt yourself. In brief, (1.) LEARN; (2.) REPEAT; (3.) REFLECT; (4.) VERIFY. This is the method of Jacotot—of the Universal Instruction. It has been necessary to mention these didactic precepts in a certain order; but, strictly speaking, the order is not essential, and cannot in practice be maintained. The *learning* involves, even from the beginning, the exercise both of the memory and of the reason; and until both are engaged, the matter can hardly be considered as *known*, and the *verifying* may be introduced, at discretion, as soon as facts enough have been gathered to serve as the basis of generalisation.

Even now I cannot hope to have conveyed, with all the accuracy required for my purpose as the expositor of Jacotot, the meaning of the terms employed. Comparatively few teachers, indeed, fully appreciate the true meaning of the correlative terms, *teach* and *learn*. A man says, for instance, "I have taught such and such a subject," and another says, "I have learned so and so:" when, in fact, they have done nothing of the kind. If the instructor has really taught arithmetic, for instance, then the pupil has learned it. Is this always the case? Is it not very often *not* the case? The teacher considers that he has accomplished all that can be required of him, if he has done his best to make the subject clear to his pupil, given him exercises to perform upon it, &c. But if, after all, the pupil has not received the knowledge in question into his mind, assimilated it and made it part of his own mental constitution—in other words, thoroughly *learned* it—then I maintain that, whatever might be the teacher's good intentions (and for them we may give him moral absolution), he has failed in that very point in which he claimed distinction. Being a teacher he has not taught, nor, on the other hand, has his pupil learnt. The object tacitly assumed in the compact between the parties has not been secured. The fact is, that the teacher has never truly taught what his pupil has not securely acquired; and teaching therefore must be defined, "getting a pupil to *learn*," and learning, "acquiring so as to *know*." The communication, then, of information which the teacher has by the exercise of his own mind gathered together, of conclusions which the teacher has himself formed on facts within his own cognizance, is not of the essence of teaching. The pupil's learning is not to depend upon these accidents of the teacher's condition, but upon the active exertions of his own mind.

Then with regard to the second principle—*Repeat*. Some teachers—*i.e.*, those who do not adopt the foregoing definition of teaching—are satisfied if their pupils *appear* to receive and appreciate a fact or an idea presented to them. The page is turned, the lesson is over, a certain acquisition is assumed to have been made, and there the matter is left to providence or to fate. A really earnest and good teacher, of any system or of none, cannot be thus contented. He has taken, by patient study of his pupil's mind and character, a gauge of both, so that he has, as it were, an inventory of the furniture of the one, and a dynamometer of the forces of the other, and regulates all the supplies in accordance with these indices of the pupil's condition. Such a teacher will take care that the labour he has already had shall not be lost, and will therefore frequently go over the ground already traversed.

But it is only a teacher thoroughly indoctrinated with the idea that his teaching is a failure if his pupil does not learn (*i.e.*, *know*) that can fully appreciate the value of the principle involved in the precept, "*Répétez sans cesse*—go over and over again." The fact is, that the thing known to-day will—such is the weakness of our memory —in general begin to fade away in a week hence, and perhaps be gone almost altogether this day month. The reservoir of facts on which I rely both for their own sake and as the means of training and strengthening my reasoning powers, is gone, and the labour spent in their accumulation is so far wasted. We learn, as we call it, and forget, and are then in the condition, so far, of those who have not learned. But the instructed man is not he who has attained only, but he who keeps, possession. It is no consolation to a man, when poor and destitute, to remember that he once was rich. We must, then, on system, secure our attainments. We must continually go over the inventory. We must take care to let nothing escape, for we shall find a use for everything we have.

This practice of repetition is a special characteristic of Jacotot's method. The eminent success of his pupils, in languages especially, was greatly due to its rigid performance. It was this repetition which gave the pupil not only *knowledge*, but that familiar acquaintance with the *matter* which constituted *mastery* and *power*, and enabled him, at the bidding of the master, to employ it in endless re-combinations; and this is its virtue. But, on the other hand, the labour demanded was immense, and could not, if rigorously insisted on, fail to become irksome and harassing, while it tended somewhat to the substitution of automatic movement for spontaneous action, of mechanism for life. It was not unfrequently and certainly not unreasonably, asked, "If the thorough acquisition of a small quantity is an essential feature of your system, and is so fruitful in valuable results, why do you strain your principle by demanding so much of the memory? You are, in fact, inconsistent with yourself, and defeat your own object." When any one, however, asked Jacotot personally whether it was necessary, for learning the French language, to commit to memory six books of Télémaque, he would reply, "No quantity in particular is necessary. Some quantity is; and it is especially necessary—nay, absolutely essential—that you should *learn*, *repeat*, *reflect*, *refer;* or, if you like, *reflect*, *learn*, *repeat;* at all events, repeat the something that you have learnt, for memory is a traitor, whom you can hardly distrust too much.

Thirdly, we must understand the Jacototian word "*Refer.*" He would have interpreted it thus: You have learned "something;" you know that something—say twenty pages of Télémaque—not only as a whole, but in all its parts. You know the matter, the subject, the persons introduced, the actions they do, the characters they typically represent. You know the language, the words, phrases, sentences, in which the author of the book speaks to you, to all his fellow-men. You are learning to appreciate the value of these symbols of thought, these words and phrases, and to see their intimate and invariable connection with the thoughts they represent. You know these words as wholes, as compounds; and you are learning to appreciate their constituent parts, the prefixes, the suffixes, the inflexions, the roots. You do not really yet *know* the twenty pages, but, with the knowledge that you have, proceed to the twenty-first. See how far the something known will enable you to interpret the as yet unknown. Look at the first sentence. Is there nothing in it connected with what you know? You look carelessly, and answer, No. But look again; make Memory do her part, make Reason do her's. Have not you had that thought before?—Think. Yes; something like it. What? Refer this to that. How are they alike? How do they differ? What light does that throw on this, or this on that? Do you understand that passage in the fourth page better than you did? Why? Compare the language as well as the thought. Refer this passage to that. Quote other passages containing the same word, the same phrase; reflect upon them, as thus brought together. What is the difference? You don't quite see. Quote more passages. Think about them; compare them. Now you see. You don't need my explanations, the juxtaposition is sufficient. Don't go to your dictionary for the meaning; don't ask your class-fellow or your master. Make your book interpret itself; and it will do this, if you will only reflect, refer, and repeat.

Then, finally, one word about *Verifying.* You are to learn facts first; facts as the basis of knowledge—as the materials for the exercise of the reasoning powers; and you are to ascend from facts to principles. This is nature's method; the method by which young children learn the mother tongue, and the first rudiments of physics; the method by which self-tuition is carried out everywhere. Then, as your mind becomes stronger and clearer, receive the generalizations of others—conclusions which others have digested from the same elements, or from a larger collection of the same elements. You need not receive these observations implicitly, in the absence of the facts—especially not in advance of the facts. Verify them, bring them to the touchstone of truth, and then you will be benefited yourself, and will learn to store up more and more materials, and reflect more and more upon them, that your own generalizations may become wider and deeper.

In all your learning, then, do homage to the authority of facts. Learn them accurately, grasp them firmly (*apprenez*), ascertain their mutual relations by close and careful scrutiny (*rapportez*), don't lose sight of them, don't let them slip away from you (*répétez*), and test general principles said to be founded on them by constantly confronting one with the other (*verifiez*).

This, then, is Jacotot's method. You can hardly have failed to notice that it is, in its general and pervading spirit, *analytical*, and thus in this respect differs widely from others of somewhat similar pretensions, but which are essentially *synthetical*. I have no time to discuss the comparative merits of the two principles, each of which has its proper place in mental education, considered as a process going on through life; but as our concern here mainly is with elementary instruction, not education, I must, in concluding my exposition, remark, that Jacotot's is essentially an adaption of the method by which young children and self-taught men teach themselves. All such, as a rule, proceed from objects to definitions, from facts to reflections and theories, from examples to rules, from particular observations to general principles. They pursue, in fact, however unconsciously, the "METHOD OF INVESTIGATION," the advantages of which are thus set out in a passage from Burke's treatise on the Sublime and Beautiful: "I am convinced," he says, "that the method of teaching which approaches most nearly to the method of investigation, is incomparably the best; since, not content with serving up a few barren and lifeless truths, it leads to the stock on which they grew; it tends to set the reader [or learner] himself in the track of invention, and to direct him into those paths in which the author has made his own discoveries." For Jacotot, I think, the claim may, without presumption, be maintained, that he has, beyond all other teachers, succeeded in co-ordinating the method of elementary teaching with the method of investigation.

We must spare a few moments to trace the life of Jacotot from his appointment to the professorship at Louvain to its close. The attention excited by the striking experiment which he carried on there led to a negotiation between himself and the Government of the Netherlands, with a view to his undertaking the superintendence of the national elementary instruction on his method. Such an outcry was, however, raised by interested and prejudiced parties against this design, that it was, even in spite of the personal influence of the king and his eldest son, given up; but, as a mark of esteem, the decoration of the Order of the Belgic Lion was conferred upon him. From this time, Jacotot, deeming himself appointed by Providence to aid the poor and ignorant by diffusing the doctrine of Intellectual Emancipation, devoted himself entirely to the demands made upon him for that purpose, and nobly refused every kind of remuneration for his instruction and advice. The sagacious and profoundly stored head was dedicated to the service of the philanthropic heart, and both placed at the disposal of all who thought he could do them any good. At the very moment when he might have made a splendid fortune by merely riding the popular gale, he forewent every advantage for himself, because he deemed that he had a gift to bestow, which being, like sunlight, a blessing for all, was not to be paid for. Let us not speak lightly or in contempt of a "quack" of this peculiar description. The world is by no means overcrowded with such enthusiasts.

In 1830 Jacotot returned to France, and lived for seven years at Valenciennes. He thence removed to Paris, where, in 1840, he died. He was buried in the cemetery of Père la Chaise, and the funeral procession was formed by five hundred disciples of his method.

The last public notice that has reached me of the method itself, is in the memoir of Jacotot in the *Nouvelle Biographie Générale*, to which is appended the following information:—"L'Université de France a fait récemment des louables efforts pour introduire la méthode de Jacotot dans ses établissements (Reglement général de 7 Septembre, 1852). Voyez le rapport presenté en 1853 à l'Empereur par le Ministre de l'Instruction Publique." This *rapport* I have not myself seen.[27]

[Jacotot's method was further illustrated by the author in two papers published in the *Educational Times* for July and September, 1867, which are reprinted as an Appendix to this Lecture.]

APPENDIX TO LECTURE XI.

ILLUSTRATIONS OF JACOTOT'S METHOD OF UNIVERSAL INSTRUCTION.

Although the account given of Jacotot's Method in the lecture delivered on the 8th of May really presents all the essential principles of his system, yet it is believed that the synthesis of principles with practice may be rendered clearer by a few illustrations.

Jacotot's method is, as he continually insists, rather the pupil's own method than his or any other teacher's. Every learner who has to be his own teacher follows the same plan of learning—that is to say, every mind, in face of the matter to be acquired, uses the same means for its attainment. All young children learn the elements of language and the rudiments of physics by themselves, that is, with no other teacher than Nature. And how does Nature, which is only another name for the constitution of things about us, teach the child? Does she, in condescension to his ignorance and feebleness, present him in due order with the several constituents of matter, with the several elements of language, and synthetically build up in his mind the notions which he is to receive? No; from the earliest moment of consciousness his senses are brought into direct contact with composite objects, with wholes or aggregates, with facts, things already made or done; and he at once begins the process of learning them, of ascertaining what these compounds are. In carrying on this process, he has absolutely no choice as to the means. The only solvent for his difficulties is analysis. He first knows things as aggregates; then, by comparing them together, perceives resemblances and differences, and learns by himself gradually to break up and resolve the compounds into their constituent parts. Thus he learns the properties of objects, the facts of language, and the elementary phenomena of human life.

In strict accordance with this analytical process, ordained by Nature in the great school of the universe, is Jacotot's method of teaching the various branches of knowledge. Take as an example the

Art of Reading.

In this method, the sacred mysteries of *b-a*, *ba*, *c-a*, *ca*, &c., in pronouncing which Dr. Bell gravely tells us "the sound is an echo to the *sense*!" are altogether exploded; those *columns*, too, all symmetrically drawn up in rank and file before the vestibule of the temple of knowledge, to the dismay and confusion of the young pilgrim to its shirne, are entirely ignored. The sphynx of the alphabet never asks him what *see-a-tee* spells, nor devours him if he fails to give the impossible answer—*cat*. The child who has already learnt to speak by hearing and using whole words, not separate letters, has whole words placed before him. These words are at first treated as pictures, which have names that the child has to learn to associate with the form, in the same way that he already calls a certain animal shape a *cow* and another a *dog*, or knows a certain human shape as *mamma* and another as *papa*. As to the name of the letters, a knowledge of which is merely a convenience, and has nothing to do with learning to read, except by way of hindrance, they may be learnt at any time, but certainly not at the very beginning. Suppose the teacher takes Miss Edgeworth's story, "The Little Dog Trusty," which begins thus:— "Frank and Robert were two little boys about eight years old."

Pointing to the word "Frank," he invites the child to pronounce it very distinctly after him. He then adds the next word, and repeats the first, thus:—

Frank
Frank and
Frank and Robert
Frank and Robert were, &c.

The teacher then proceeds to ascertain whether these words are thoroughly well known. "Which is 'Robert'?" "Which is 'boys'?" "What is that word?" (pointing to it), &c. "Show me 'Frank' in such a page and such a paragraph," &c.

In the next lesson, or after the next three or four lessons of the same kind, in which "learning" and "repeating" have alone been aimed at, the teacher may invite the pupil to analyse, with a view to "referring" the unknown to the known. Telling the child to look at him, not at the book, he deliberately articulates, "F—r—ank;" then does the same while pointing to the word. As "father" has occurred in the second or third lesson, the teacher asks for it, requires the child to notice the configuration of his mouth, points to the letter *f*, and asks for the *sound* (not the name) of it; and the pupil will give it at once, and thus the *power of f* has been learnt; so with the *r;* so with the vocal sound of *s* in boy*s* and year*s*, &c. The lesson just indicated may be the fourth, or the tenth, as the teacher pleases; but without any anxiety on his part in guiding the analysis, the pupil's mind (if only learning and repeating are thoroughly kept up) will do the work of itself, and much more rapidly and effectually than any one would suppose who had not made the experiment. The fact is, that even in this earliest stage, the child is already a pupil of "the method of investigation." His mind is already actively engaged in the same mental acts as constitute the process by which the full-grown philosopher applies himself to any new subject. He is busied in accurately learning objects, in comparing them together for the detection of resemblances and differences; in decomposing and analyzing them, and thus learning them in the detail as well as in the aggregate, and gaining from this investigation power for the solution of future difficulties. Did not Newton teach himself the elements of optics in some such way as this, though he read not the words of a book of man's devising, but the phenomena which stand for words in God's great book of Nature? It will be observed that in teaching according to this principle, that only which is purely conventional, such as the sound of words and syllables, the names of letters, &c., is to be communicated to the pupil; whatever can be ascertained by reflection and thought, he is to reflect and think upon for himself, under the guidance of the teacher.

THE MOTHER TONGUE.

Any well-written English book, as being an embodiment of the main facts or phenomena, both natural and conventional, which distinguish this language from every other, and as presenting illustrations of its words, phrases, idioms, and style of composition, may be said, in a general sense, to contain the language. In this sense, "Rasselas," or the "Vicar of Wakefield," the "Pilgrim's Progress," "Paradise Lost," or "Ivanhoe," contains the English language; and he that thoroughly *knows* any one of these works substantially knows the English language. But knowing a book means having that thorough acquaintance with it which consists in perfect mastery over every element of it—every paragraph, division, chapter, sentence, word, syllable, and letter, and by virtue of which the student *possesses* these elements, and uses them with conscious power for his own purposes when he wishes to do so.* Such mastery is not gained until the pupil knows and can give a reason for every paragraph, sentence, &c.,

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* If you read ten pages of a good book, letter by letter,—that is to say, with real accuracy,—you are for evermore in some measure an educated person. The entire difference between education and non-education (as regards the merely intellectual part of it) consists in this accuracy."—(*Ruskin's* "Sesame and Lilies," p. 29.)

and sees why this special word, phrase, or allusion forms a part of that particular book rather than of any other; until the book is at his command, as an arsenal whence he may derive every kind of weapon for defence or offence—for facts, arguments, illustrations, &c. So the Covenanter knew his Bible, which furnished him with nourishment for his own spiritual life, and, moreover, with the artillery of death for the enemies of his God. Out of that book he obtained facts and doctrines, pregnant words, as well as phrases, metaphors, authorities, and illustrations; and these, by reading and meditation oft repeated, became instruments of mental power, and even of eloquence. Whatever, then, may be comprehended under the expression, *knowing* a book, is involved in the direction—"*Learn*, i.e., *know*, a book;" or if that is asking too much, know, in the manner indicated, a portion of a book; learn it by *heart;* know it by the *understanding*, and *repeat* frequently the portion learned by heart. So preserving the materials that they may be ever ready for use—reflect upon them—employ them in every possible way so as to strengthen your hold upon them—analyse, compare, meditate, recombine, imitate, relate the substance of such a paragraph in full, then condense the relation; condense it still further, until you come to the germ-thought of the author; develop that hint which he gives; express that thought without the metaphor which he has employed; paraphrase that passage; write your own thoughts upon his thought, &c., &c. Work thus continually on the matter of your author, and, in proportion as you penetrate into his art of writing, you will learn the art of writing too. To enter a little more into detail. Suppose "Rasselas" is the book chosen. The pupil learns by heart a sentence, or a few sentences, and to-morrow adds a few more, still repeating from the beginning. The teacher, at the first lesson, or after two or three lessons of learning and repeating, takes portions—any portion—of the matter, and submits it to the crucible of the pupil's mind:—Who was Rasselas? Who was his father? What is the father of waters? Where does it begin its course? Where is Abyssinia? Where is Egypt? Where was Rasselas placed? What sort of a person was Rasselas? What is "credulity?" What are "the whispers of fancy," the "promises of youth," &c.? What was there peculiar in the position of Rasselas? Where was he confined? Describe the valley. What animals were found there? Why is the kid called sprightly; the monkey subtle; the elephant solemn? How would you have liked to live in that valley? Why so? Why not? &c.

In this or any other suitable way the teacher may ascertain whether the pupil pays attention to what he has learnt. The whole object of such questions is to quicken the pupil's attention, to rouse his perceptive powers, to help him to appreciate the meaning —a process greatly aided by the committal to memory and the frequent repetition. Then let the pupil begin to exercise his own powers. To this end give him such

Exercises

as these:—

1. Let him *write from memory* a paragraph or more for the sake of the spelling. Then let him compare his exercise with the book, and *correct the errors himself.* Let him to-morrow write the same paragraph from memory until there are no errors; which will soon be the case, for no plan of teaching spelling yet devised is equal in efficiency to this.

2. Let him *relate*, in writing, the substance of the first chapter —taking separately the valley, the mountains, the palace, the emperor's annual visit. Every statement made, every phrase employed, the words, &c., must at first be *justified* by reference to the facts of the book, and all the corrections should be the pupil's, not the teacher's.

3. Let him begin to *generalize*, and after being questioned on the symptoms of Rasselas' discontent (Chap. II.), let him write on "Discontent," gathering the materials from the book. He may also compare Imlac's discontent with Rasselas', &c., or treat the discontent of a boy at school, &c.

4. He may write *definitions* of words—"credulity," "fancy"— and must always justify the definition by reference to the facts of the book; *e.g.*, "Credulity is easy belief." *Q.* What shows this? —*A.* The conduct of Rasselas. *Q.* Wherein did he manifest credulity?—*A.* By believing readily everybody that promised him happiness (mentioning the instances).

5. He may write *distinctions between synonymous words:* such as "listen," "hear," "attend to," &c. These distinctions the pupil must justify by reference to the facts.

6. He may *classify phrases; e.g.*, "to listen *to* the whispers," "to perform promises," "to supply deficiences," &c.

7. He may *imitate* the plan of certain descriptions, *e.g.*, describe the Regent's Park, or any other, on the plan of the description of the Happy Valley, &c.

8. He may *explain metaphors* — as "whispers," "fancy," "phantoms of hope," &c.

9. He may *discuss* the moral advantages and disadvantages of the life led by Rasselas in the valley.

10. He may write *imaginary letters* between the personages of his book.

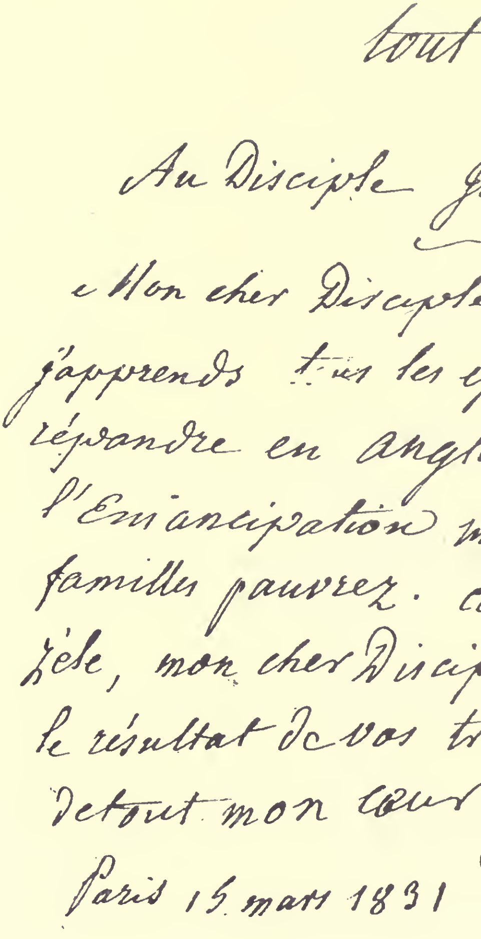
11. He may write *imaginary dialogues* or conversations between the same personages.

12. He may write *an analysis* of a given chapter, paragraph, &c.

Besides the above exercises, as connected with the matter of the book, many more can be devised involving the classification of words in reference to their roots, prefixes, suffixes, &c.

The number of exercises is, in short, illimitable, and as they all tend to illustrate the connection between thought and language, it seems clear that they all tend to increase the pupil's command over the resources of the mother tongue.

It will have been observed that the whole of the process described is resolvable into obedience to the precept—*learn*, *repeat*, *refer*. As to the *verifying*, when the pupil has a practical knowledge of the facts of language, the verification of grammar or of general remarks on style, &c., becomes easy. In a certain sense, the English language, and consequently the English grammar, is all contained in Rasselas. The exceptions as to the grammar must be few and inconsiderable; and as to the language, the fact is beyond doubt that for all practical purposes Rasselas does contain the English language; and the pupil who knows—no easy task—his Rasselas, has a *point de départ* for all English literature. He will still have much to learn, certainly; but he will have learned more of his mother tongue than is usually attained in the same expenditure of time. The same facility in writing English which was gained by the students of Télémaque in writing French, may be gained by the study of Rasselas, but under the same condition; that something must be thoroughly learnt, *i.e.*, known, frequently repeated, reflected on, analysed, used as the material for synthesis in composition, and as a storehouse of facts for the establishment of the elementary principles of grammar and rhetoric, ethics and æsthetics. The resources of even such a book as Rasselas will be found all but exhaustless; while the training which the mind undergoes in the process of thoroughly mastering it, the acts of analysis, comparison, induction and deduction, performed so frequently as to become a sort of second nature, cannot but serve as an excellent preparation for the subsequent study of English literature.



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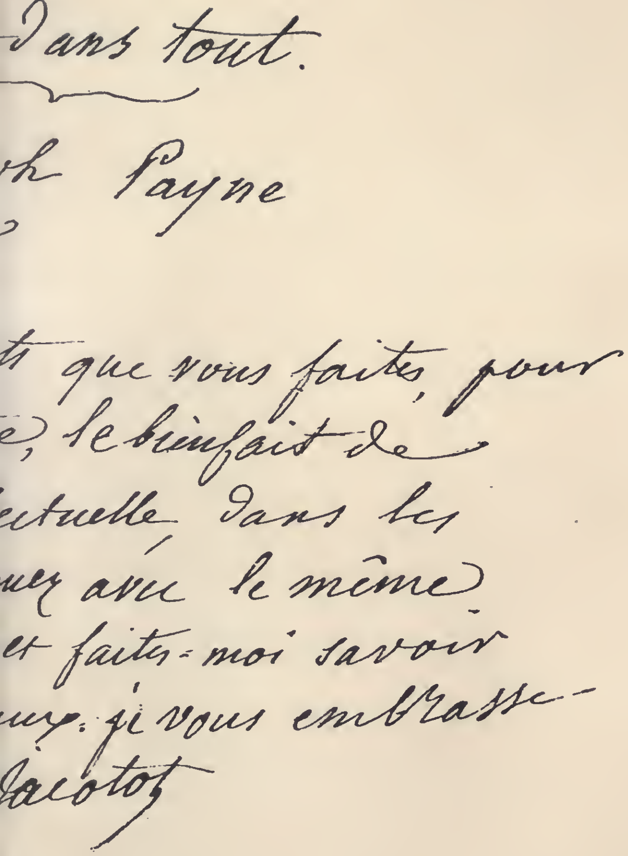
Paris 15 mars 1831

p. 159.



dans tout.

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Jacotot

Whatever objections may be taken against this plan of teaching composition, it cannot be said that it requires bricks without furnishing the proper amount of straw. The one book with its abundant materials—and those materials the product of the author's thought—supplies the pupil with objects for his thought, and a model for its expression. The perception of the extent to which one book thoroughly known may thus afford the basis of mental training led Jacotot to the utterance of the famous dogma—*tout est dans tout*—"all is in all," or "all is in everything"—and of the corollaries, "one book contains a language," and "know a book and you know the language." These somewhat crude propositions were still further perplexed by the apparently, but not actually, opposing dicta—"no one really knows one book"—"no one really knows, nor can know, any language, not even his mother tongue." However objectionable such utterances as these may be in their naked technicality, every one perceives that they point to the general principle, that it is better to cultivate a limited field thoroughly, by concentrating the faculties upon one—not, however, a single—thing, than, by grasping at a larger area, to run the risk of distracting the mind and enfeebling its powers. An explanation of the technical meaning of "*tout est dans tout*," and an estimate of its value as a dogma of "Pädagogik," will be offered in the next number of "The Educational Times."

JACOTOT'S METHOD OF UNIVERSAL INSTRUCTION.

"Tout est dans tout."

Few of the dogmas of Didactics (to coin a word which is very much wanted) have been more fiercely controverted than the above; and it must be confessed, that in defending it Jacotot and his disciples often found themselves hard pressed. As a specimen both of the attack and the defence, the following may be cited. An objector once very slily asked a disciple whether, when he maintained that "all was in all," he meant to say that "all" was in Télémaque? "Yes," was the reply. "And is all Télémaque in the first book?" "Yes." "And in the first word?" The disciple was silenced, and all the bystanders burst out laughing. Jacotot was informed of the incident, and asked what he would have replied. His answer in substance was:—that in a general sense, the sense in which he understood "tout est dans tout," all human intelligence was represented in Télémaque, and also in the word Calypso. This word was originally the invention of a man who wished to make it stand for an astute, artificial, insincere character, and created it therefore out of a Greek word, meaning to conceal or hide (καλύπτω). The man who conceived the character originally, and devised the machinery for displaying it, was not obliged to create the fiction of Calypso at all; but he was an artist, and desired to make others share the pleasure which the thought of it excited in his own mind. When, therefore, we see the word "Calypso" at the beginning of Télémaque, we at once recognise another artist, who intends to introduce the same character into his work, and who invites our sympathy with his design. We feel assured beforehand that, in some way or other, this character will be found essential to the purpose of the artist; and that, when we are far on in the story, we shall, on looking back, see that, as Calypso is in Télémaque, so Télémaque is in Calypso, and therefore that "all is in all." But the inventor of Calypso's character, of which the name is a representation, displays in his invention the same means, and works to the same end, too, as the creator of "Macbeth" or of "Paradise Lost"—he works on the same general laws, although under infinitely varying circumstances. But further still, the mind which created these literary works is the same human mind that discovered the theory of the rainbow, or the electric telegraph. It is the same human intelligence, although working in different materials, and it cannot but leave the same mental stamp upon everything it operates on. So that in this respect, too, "all is in all." Again, wherever man has been, we see the traces of his footsteps. All the sciences, all the arts, oratory, geology, dynamics, &c., all are the fruits of the intelligence which created the word "Calypso."—"Tout est dans tout."

Such an explanation as this, which pretty faithfully represents that which was given by Jacotot, could hardly be expected to satisfy everybody. To say that the whole of Télémaque was in the word "Calypso," *because* "Calypso" was in Télémaque, and because both the word and the entire work were productions of the same human intelligence, was certainly using the words in a very special and peculiar sense. Nor are we much advanced in our comprehension of the technicality, when, as in other parts of his works, Jacotot adds to "Tout est dans tout" the equally crabbed and puzzling "Rien n'est dans rien," though a glimpse of light is perhaps shed on our path by his declaration, that he means "All is in all" to be understood as referring to *principles*, and "Nothing is in nothing" to *facts*. We therefore find him consistently maintaining that, as to general principles of art, Horace is in Cicero, and *vice versâ;* yet as to special facts, that the "Fons Bandusiæ" is not in the latter, nor "Quousque tandem, Catilina," in the former. In proportion as we escape from the entanglement of the phraseology, we begin to recognise the development of principles, which many who reject the technicalities willingly admit. Had Jacotot, indeed, only altered a word or two in his formula, his meaning would have been clear; while the practical value of the dogma would have been unaffected. It should, however, be observed that paradoxical expressions like these are purposely framed to catch attention and induce discussion. The sense in which they are to be interpreted has ultimately to be obtained from their author. What Jacotot apparently means to assert is, that all things in Nature are connected together, and form a great whole. This whole, which we call the Universe, consists of parts presented to our minds in masses, or aggregates. These masses are, in relation to the whole, units, but are themselves separable into parts. The same general relations of resemblance and difference, cause and effect, &c., seem to connect the minutest of these elementary parts with the largest of the masses; and these, again, with the great whole, or Universe. So that there is really an intimate connection and correlation between the physical phenomena of Nature.

In the sense here suggested rather than explained, that every mass is a constituent of a larger whole, and at the same time an individual aggregate, we may perceive that every man is not only a unit of the mass of humanity, but also a typical representative of human nature itself, and therefore, both in the Universe and in Man, we recognise a general agreement subsisting in the midst of endless diversity—inexhaustible variety in the midst of essential unity. Whether we convey this idea by saying that "Man is a microcosm"—a little world—or assert that "Human nature is ever the same;" or exclaim with the witty Lady Mary, that "you may travel from London to Constantinople and find nothing but men and women after all;" or exclaim with Byron, that—

> "History with all her volumes vast
> Hath but one page;"

or that—

> "Ages and realms are crowded in this span,"

i.e., in the space occupied by a single ruined column; we are still maintaining the same general proposition, that "Tout est dans tout."

If, then, Jacotot, instead of insisting so much on an ambiguous formula, had said *tout tient à tout*—all is connected with all—few would have contradicted him.

But some may still be found inquiring what relation there is between either of the expressions and a practical method of teaching; or, in other words, what is the didactic value of the dogma? Jacotot's reply would be something like this:—What is true of men is also true of their works. In them, as in the works of God, there is both variety and unity; and this not only in respect to the general principles affecting all the products of the human mind, but in respect to any one single human work. "Tout est dans tout," is as true when spoken of Télémaque or Rasselas as of human nature itself. Every part of the book is contained in, or closely related to, every other part, and to the whole. The tendency in human work is through, and by means of, multitudinous, and sometimes apparently incongruous, details, to secure unity of effect. We see this unity pervading, for instance, "Paradise Lost." The dominant theme which appears in the exordium:—

> "Of man's first disobedience, and the fruit
> Of that forbidden tree whose mortal taste
> Brought death into the world," &c.

is sustained throughout the whole poem, and is heard in undiminished strength at the close:—

> "They, hand in hand, with wandering steps and slow,
> Through Eden took their solitary way."

In a certain sense, then—and not a strained one—the whole of "Paradise Lost" is in the exordium, and not less in the close of the poem. In the same way, and similarly interpreted, the "Iliad" is in the words:—

> "Achilles' wrath, to Greece the direful spring
> Of woes unnumbered, heavenly goddess, sing;"

and the "Æneid," in:—

> "Arma virumque cano."

So far as the *subject* of a book is concerned, therefore, and the relation between that and the parts of the work, "all is in all."

The beginning of the book interprets the end, and *vice versâ*, and this or that passage in the middle, both the beginning and the end. because the master-thought of the author subordinates all to his design, and preserves essential unity in the midst of endless variety.

Then for the *language*. As one average man represents the human race, so one average book (not technical or eccentric) represents the whole of the language in which it is written. If you know this average man, yourself for example, thoroughly well, you know man. If you know one book, say a French one, thoroughly well, you know French. And on the same principle, if you know fifty pages of a book thoroughly well—know them as you know all the component parts of a flower that you have microscopically dissected—know the sense and significance of the whole and of all the parts, know the portion in question by paragraphs, by sentences, by phrases, by words, by syllables, by letters, even (for they too may be significant), you will find that the rest of the book, beyond the fifty pages, and all other books in the same language, will consist almost entirely of combinations of these, phrases, words, syllables, and letters. Much more, then, if, instead of only fifty pages, you knew thoroughly a whole book, both by memory and understanding (each of which must be guardians of the store), will you know the language which the book represents. But this result springs solely from the principle so often repeated, that "all is in all," or all is connected with all; and hence it is that the *known* becomes so valuable a guide to the *unknown*.

Those who have any doubt about the actual quantity of matter contained in only a few pages of a book, and to whom the idea of "tout est dans tout" is not even yet familiar, may be invited to consider what is really involved in reading a book with a view to the mastering both of the subject and the language; reading it, that is, in the sense indicated by Bacon and Locke, who tell us that we must "chew" over and over again, and "digest," that matter from which we expect to derive strength and nourishment. "It is not enough that we read, it is thinking," says Locke, "that makes what we read ours." One who reads in this way—the only way by which we can verify Jacotot's "tout est dans tout"—finds, so far from his range of investigation being limited by confining himself to the narrow bounds of one book, that he can by no human effort grasp the possible combinations of the ideas therein contained, nor follow the infinite paths along which any one of them, if pursued, would lead him. Take, for example, this single sentence, "Rasselas was the fourth son of the mighty Emperor in whose dominions the Father of waters begins his course." Consider first the logical and grammatical relation of these words, as illustrations of "subject," "copula," and "predicate;" of the double use of *was*, as "copula" and substantive verb; of the difference between principal and subordinate sentences; of the classification of words generally into "parts of speech," and the special classification of these individually; and of "concord" and "government." Then distinguish between "notional" and "relational" words, and examine the idiomatic expedients of different nations for securing the true ends of language. Next trace the origin and derivation of special words, as "mighty," "emperor," &c.; then discuss the rhetorical artifices of language, the functions of metaphors in style, &c., &c. Hour after hour might be spent in the various commentaries just suggested upon this single text, which would not even then be exhausted; for as we proceeded in our reading we should, on reaching a certain point; look back to this passage for additional light, and see in turn the light of the current passage reflected on this. Again, we can hardly be said to know a thing ourselves until we see it as others see it, and our knowledge of it will be really in proportion to the number of points of view from which we can observe it. Apply this observation to the first chapter of Rasselas. Let twenty different persons of different ages, countries, stations in life, professions, degrees of education, &c., read that chapter, and while all derive from it what may be called a common impression, each will find in it, and derive from it, something which the rest have failed to see, or at least to appreciate. Let, for instance, an architect read it. He notices, in common with others, the description of the lake, the animals, the annual festivity, &c., but his attention is especially fixed on "the palace;" he ponders over the details, conceives the structure in his mind, and perhaps pronounces the writer to be "no architect," and he estimates the strength of a building, which, exposed to "solstitial rains, and equinoctial hurricanes," could stand "from century to century without need of reparation," &c. Again, a political economist would care little about the palace, but would be intensely interested in the singular position of a place barred out as it were from the world; and would speculate upon the conditions imposed on a community by the suspension of the ordinary laws of supply and demand, rent, wages, &c. A lawyer might be curious to know how disputes were settled, and what penalties would be inflicted for offences. The moral philosopher would speculate on the effects of perpetual imprisonment in a spot where "the blessings of nature were collected and its evils extracted and excluded," and where "every desire was immediately granted," on the moral character of the inhabitants. The naturalist would wonder what species of fish or fowl were found "inhabiting" or "frequenting" the lake, &c. These illustrations will suffice to show how difficult, nay, how impossible it is to know even one chapter exhaustively, and serve perhaps to throw some light on the severe interpretation attached by Jacotot to the precept—"learn something thoroughly" (*apprenez quelque chose*). It is now, we may assume, perceived that all other books may in a certain sense be commentaries on the one chosen for study, and become, in proportion as this is really known, more and more associated with it. It is in this sense that Jacotot, somewhat extravagantly, says, "He who knows one book, knows all books;" which, rendered into the language of common sense, means that he who knows one book, say "Paradise Lost," is in possession of a store of thoughts, illustrations, sentiments, expressions, phrases, words, which, if he has them completely at command, will serve as pegs to which to attach other thoughts, &c., which he meets with in his subsequent reading—or, in other words, the book thus known contains even from the first sentence or its first word, an infinite number of starting points (*points de départ*) from which the pupil may proceed in all directions, and back to which he may refer every newly acquired idea, or piece of knowledge, whatever it may be. And this is true whether we regard the matter or the language. Hence the second part of Jacotot's precept—"and refer all the rest to the thing thoroughly learned" (*et rapportez y tout le reste*). Now this reference is possible only on the assumption that there is a connection between the thing "learned" and the thing "referred" to it; and it is this connection, founded ultimately on what is termed the *association of ideas*, that Jacotot technically indicates by the expression "tout est dans tout." Hence we perceive that there is a practical value in the dogma, inasmuch as it underlies and supports the machinery of the method, and gives a stimulus to that habit of concentrated attention which is the fruitful parent of mental growth and power, and of extensive and accurate knowledge.

But it may be said—it has been said—that if Jacotot's notions of teaching were really based on natural principles, they would have been carried out before; that men would have been heard of who had "learned something," "referred the rest" to it by reflection, "repeated" and "verified," and that the results of their practice would have been seen and appreciated. Such has been the case. Instances in point abound, though space only permits the mention of a few. What is the meaning of the fact, that real students choose their favourite author "as they choose their friend;" that they read him often and with ever-increasing delight; that they strive continually to enter into the spirit of his thoughts and illustrations, and discover on every perusal new beauties starting up from points which had previously escaped notice? Such students are sensible of a deepening conviction of the inexhaustible intellectual wealth of their author, and that therefore it is better to read much (*multum*) in him than many things (*multa*) in others. In this spirit Demosthenes took as his master Thucydides, and wrote out the famous "History" eight times with his own hand. And so Athenian education generally consisted of the study of Homer, whose works were committed to memory, thoroughly analysed, illustrated, commented on, and made the means of acquiring a perfect knowledge of the mother-tongue. The influence of this study of Homer is seen also in Plato, and the Greek tragedians; nor less in Virgil, whose Æneid has been well characterized as a "lunar reflection" of the Iliad. So we find Lord Clarendon sitting at the feet of Livy and Tacitus; Voltaire, too, at those of Racine and Massillon; Lord Chatham committing to memory whole sermons of Barrow; his illustrious son, "seldom without 'Paradise Lost' close to his side;" Burke, to use his own words, "reading Milton, morning, noon, and night;" Sir W. Jones, "invariably reading through the works of Cicero every year;" and old Montaigne, speaking of continually carrying his vessels to be filled at the headsprings of Plutarch and Seneca. Not to quote further instances, what meaning, it may be inquired, was attached in old times to the warning, "Cave ab homine unius libri" (beware of the man of one book), but this, Beware of the force and power derived from concentrated attention to one subject? The man thus equipped is ever ready for the encounter; he has a magazine of ammunition continually at command; he will overwhelm you with his facts, illustrations, allusions, arguments; his resources are inexhaustible.

It is clear that the process through which the minds of the eminent students just referred to passed in mastering their author was substantially the same as the method of Universal Instruction. They thoroughly *learned*, that is, made themselves masters of their model, by entering deeply into his spirit and sense—they *repeated*, that is, reperused frequently, both to aid the memory and to stimulate the reflecting faculties. At each reperusal they *referred*, and fastened on the pegs already fixed the kindred thoughts with which in the interval they had become enriched; and they *verified*, by bringing the general principles of grammar, logic, taste, criticism &c., to the test of the sentiments and phraseology of their author.

In these examples we see plainly a method of learning which has been extensively employed, and with great success. As learning and teaching are correlative, we should expect that the best method of teaching would be founded on the best method of learning. Hitherto this mode of viewing the subject has received little attention. The best method of teaching has been too generally considered that which was best in the teacher's own eyes, without regard to the underlying principles. It is, however, very important —and never was more so—to ascertain what the true principles of Didactics are, and thus to relieve education from the charge of being still, after ages of practice, in a state of empiricism.

LECTURE XII. (Extra).

On Teaching Foreign Languages.

The problem of teaching foreign languages is so important in itself, and still remains so unsettled, that I have thought it worth while, in treating the History of Education, to give it special consideration. I have already shown that in Athenian education this problem did not exist. Children at Athens were taught no other language but their own. At Rome, children learnt Greek as well as their mother tongue. We are not, however, as far as I am aware, acquainted with any process adopted in teaching Roman children Greek, which can be strictly called a method. The practice most of all relied on was that of employing Greek servants. Greek teachers were brought into immediate contact with the Roman children, who learned Greek much as Montaigne learned Latin in his father's house. Many Roman boys were also sent to Athens to be instructed in Greek at the very fountain head. They all then acquired the use of the language by practice. Let us consider what *practice* means.

The mind impressed, through the ear, by sounds evidently connected with a definite meaning, begins at once to seek for the meaning through the facts with which the sounds are associated. The language of facts or things interprets the language of sounds, and through this necessary interpretation the child learns the language of sounds. I have before shown you that the mental process by which this is done is, in fact, analysis. Gradually the mass of sounds is disintegrated. Word after word, phrase after phrase, is separated from its surroundings, and seen and appreciated by itself. Then comes synthesis. The child is prompted to do what he can,—to use, in short, what he knows,—what he has learnt by his observation. He makes new sentences out of the words and phrases that he has heard, utters them, ill or well, fumbles, stumbles, sometimes comes to a dead stop, tumbles down, picks himself up again, cares nothing about his failures, makes another venture remembering something that he had just before forgotten, succeeds this time, and so he goes on blundering and correcting his own blunders, and at last learns to speak as those speak by whom he is surrounded—correctly if they speak correctly, incorrectly if they speak incorrectly. But what do we mean by correctly? That question, interrupts the grammarian, is very soon answered. To speak correctly, is to speak according to the rules which I shall teach the child. Unless he knows these rules he cannot speak correctly. These rules are laws, and unless he obeys the laws, he cannot go in the right way. This looks very plausible, certainly, but let us examine it a little. What are these rules? They are observations made by some one in the language as spoken and written by those who know it best. "That is, by those who speak and write it correctly?" "Yes." "Well, then, we are running round in a circle, and making no progress. If the child imitates these persons who give you the materials for your grammar, he speaks and writes correctly not by means of, but independently of, your grammatical rules." "Are rules, then, of no use?" "Yes, the rules made by the child himself in view of the facts that he sees and knows are of great use—(1) because it is useful for him to get the habit of classifying and generalizing facts; and (2) because the rules thus framed are compendious expressions which serve as tests for trying the correctness of phraseology sometimes employed by those who speak or write in ignorance of the best usages of the language."

In what has preceded I have briefly expressed the main arguments for and against the use of grammar rules; I have introduced the subject because it is a characteristic of all the educational reformers, without exception, that they maintain that an acquaintance with the facts of language is to precede, not follow, a knowledge of grammar. You will remember that Ascham, Colet, Wolsey, Ratich, Comenius, Montaigne, Rousseau, Locke, Basedow, Pestalozzi, Jacotot, all agree on this point. They further agree that in learning a foreign language we are to start from the mother tongue. Hence we find Ascham, Ratich, Locke, Jacotot, giving a translation either orally or in print, in direct juxtaposition with the foreign text. Ratich especially took the translation first, and treated it as a matter to be read and understood by itself, before the foreign text was seen at all. Opinions may differ as to the expediency of this practice. The main argument against it is the fear lest the child may grow indifferent to the development of the sense through the foreign text if his interest is first exhausted on the translation. The argument for it is that the learner's previous acquaintance with the subject prevents that feeling of embarrassment and perplexity—that state of utter confusion—in which he cannot see the wood for the trees, which is the normal condition of a child struggling painfully against the difficulties designedly placed in the way by the grammar-school style of learning a language. Another characteristic of the reformers' plans is that the language, whatever it is, ancient or modern, is treated as a living tongue. Though the learner may never have occasion to speak Latin or Greek, for instance, yet it is believed that to proceed on the assumption that he may have to, will be very advantageous to him, inasmuch as the calling on him to use continually what he knows gives him a more sound and intimate knowledge of it. In modern times Professors D'Arcy Thompson and Blackie teach both Greek and Latin as if they were living tongues, and make their pupils speak as well as write them. In all the points enumerated, viz.: the postponement of grammar rules, the starting from the mother tongue, the treatment of all languages as if they were to be spoken as well as written, the innovators are in the main agreed, and it may be further remarked that the principle which lies at the bottom of them all is that which I have so often insisted on, that the learner's personal experience—the experience acquired by positive knowledge of facts, *i.e.*, facts of language—is the only principle that can safely be relied on; for here, as in the learning of things, the child is to be his own teacher, working under the superintendence of the formal instructor. You are prepared by these general views for the exposition I now purpose to give of special methods of teaching languages. I have already sufficiently explained the methods of Ascham, Ratich, and Basedow, as well as what appears to me the anti-natural method of Comenius. We come next to that which is usually called Locke's method of interlinear translation. Locke, in speaking of teaching Latin, says, almost in the words of Montaigne, "If a man could be got who, himself speaking good Latin, would always be about your son, talk constantly to him, and suffer him to speak or read nothing else, this would be the true and genuine way." Shortly afterwards he says the next best way is to have the child taught as near this way as may be, which is by taking some easy and pleasant book, such as Æsop's Fables, and writing the English translation made as literal as it can be in one line, and the Latin words which answer each of them just over it in another. These let him read every day over and over again, till he perfectly understands the Latin, and then give him another fable, till he be "also perfect in that, not omitting what he is already perfect in, but "sometimes reviewing that to keep it in his memory." After this has been continued for some time, Locke recommends the learning of the declensions of nouns and pronouns and of verbs perfectly by heart. He then proceeds. "When by this way of interlining "Latin and English one with another, the child has got a moderate "knowledge of the Latin tongue, he may be advanced a little further "to the reading of some other easy Latin books, such as Justin or "Eutropius, and to make the reading and understanding of it less "tedious and difficult to him, let him help himself if he please with "the English translation. Nor let the objection that he will then "know it only by rote frighten any one. This, when well considered, "is not of any moment against, but plainly for, this way of learning "a language. Foreign languages are only to be learnt by rote, and "a man who does not speak English or Latin perfectly by rote, so "that having thought of the thing he would speak of, his tongue of "course, without thought of rule or grammar, falls into the proper "expression and order of that language, does not speak it well, nor is "master of it." He then proceeds to defend his method against those who still complain that it does not sufficiently take account of grammar, and allows the great importance of the study of grammar at a later stage of instruction. It is curious in showing that earnest men often hit upon the same notions, that Locke very nearly anticipates Jacotot's idea, that one may teach what one does not know oneself. Listen to these words:

"And indeed whatever stir there is made about getting of *Latin* "as the great and difficult business, his mother may teach it him "herself if she will but spend two or three hours in a day with him, "and make him read the Evangelists in *Latin* to her: for she need "but buy a *Latin* Testament, and having got somebody to mark the "last syllable but one where it is long in words above two syllables "(which is enough to regulate her pronunciation and accenting the "words) read daily in the Gospels, and then let her avoid understanding them in *Latin* if she can. And when she understands the "Evangelists in *Latin* let her in the same manner read *Æsop's* "*Fables*, and so proceed on to *Eutropius*, *Justin*, and other such "books. I do not mention this as an imagination of what I fancy "may do, but as of a thing I have known done, and the *Latin* "tongue with ease got this way" ("Thoughts on Education," Cambridge edition, 1884, p. 156).

I have already given my opinion on this point (see p. 145), and I repeat that although a man may get along in life with one leg and one eye, and even under these disadvantages prove a guide to others, yet that it will be better for himself and others that he should be in the possession of all his faculties. As a brief illustration of Locke's method, we will take two or three lines of Phædrus.

> *Lupus et agnus*
> The wolf and the lamb,
> *Ad rivum eundem lupus et agnus venerant,*
> To the same stream the wolf and the lamb had come,
> *Siti impulsi.* *Superior stabat lupus*
> By thirst forced together. Higher up the stream was standing the wolf
> *Longeque inferior agnus.*
> And far lower down the lamb.

Any child of seven years old could teach himself, by a few questions from the teacher, all the Latin words of the passage, and after going over it two or three times, could answer without book, "What is the Latin for wolf—lamb—had come—by thirst—higher up—lower down?" &c., and after this lesson could repeat the lines by heart or from memory; or, if he forgot for a moment, could refresh his memory by referring to the facts, *i.e.*, the words of the text, and further, could say in Latin "the lamb was standing higher up." I have even known children accustomed to observation say "*lupus et agnus stabant, lupus venerat*," &c. There is no construing—a process which ought rather to be called *destroying*, for it is an unnecessary interference with a special idiom of the language, the order of the words. No good teacher of Latin will, in my opinion, founded on experience, sanction the vicious practice of construing.

The following is a page literally copied from Locke's edition of Æsop's Fables:—*

Of *the Cock.*
De *Gallo.*

The Cock, *whilst* he turns over *the Dunghill,*
Gallus, *dum* vertit *stercorarium,*

finds *a precious stone:* Saying, *why* do
offendit *gemmam:* inquiens *cur*

I find *a thing* so *bright?* If *a jeweller* had found
reperio *rem* sic *nitidam?* Si *gemmarius* reperisset,

it, *nothing* would be *more joyful* **than he,** as
nihil esset *lætius,* ut

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* "Æsop's Fables, in English and Latin, interlineary, for the Benefit of those who, not having a master, would learn either of those tongues. The second edition, with sculptures. By John Locke, Gent. London, 1723."

one who knew *the price* **of it.** To me *indeed* it is
qui sciret *pretium.* Mihi *quidem* est
of no use, nor *do I much* *esteem* **it.** Yes *truly,*
nulli usui, nec *magni* *estimo.* Imo *equidem,*
I had rather **have** *a Grain* of Barley *than all the*
mallem *granum* Hordei *omnibus*
Jewels **in the World.**
gemmis.

Locke's method, I believe, was not very extensively adopted. It was felt that there was a degree of uncertainty and looseness in its action. At all events, if these defects were provided against by his own administration of it, they would most likely characterize it when adopted by another. On the whole, then, we may conclude that a pupil of Ascham's method would gain a firmer hold upon languages, and, therefore, become a better scholar. A combination of Ascham and Locke would probably produce something better than either.[28]

Leaving Locke, however, let us review the far-famed method of Hamilton. In principle, there is not much difference between Locke's and Hamilton's, though Hamilton would never allow this. He pretended, indeed, that his method was a discovery, and if, as Sydney Smith said, the man who seizes an idea and not only possesses it, but is possessed by it—who, not contented with it merely as a theory reduces it to practice and possesses others with it, is the true discoverer, we must allow Hamilton's claim. Never, certainly, did a man trumpet forth more loudly his own pretensions and praises. Ratich was a simpleton in comparison. From a pamphlet in my possession on the Hamiltonian system, dated 1829, written by himself, I extract these as his principles:—

1st. Teaching, not ordering to learn.
2nd. Teaching to translate at once, without beginning with the grammar.
3rd. Furnishing the pupil with an analytical translation.
4th. Giving in his translation one meaning, and only one, to the same word.

The two points here, which are distinctive, are the so-called analytical translation, and the giving to the same word always the same meaning. He says as to the first, give the pupil instead of a grammar a dictionary; not one on the common plan, but *a dictionary for every book he reads*, comprehending not simply the *roots* of the words, but every word. Let such a dictionary point out the mood, tense, and person, of every verb, the case of every noun, furnish a perfect analysis of the phrase and of every word in it, so that the pupil shall not only be able to translate his book with infallible certainty in the tenth part of the time hitherto requisite, but be able at the same time to parse it, that is, to have a perfect knowledge of its grammar also. Now this dictionary is precisely a *Hamiltonian Translation*, and there is a certain truth in the pretension that a thoroughly literal translation is a virtual dictionary and grammar in one. To go back to the fable of the wolf and the lamb "*ad rivum eundem lupus et agnus venerant.*" "To the same stream a wolf and lamb had come." The child who learns that *venerant* and "they had come" are exactly equivalent to each other, is prepared when *amaverant* occurs with the translation "they had loved" to compare the words together and see the connection between the expressions, and therefore, to be ready when he meets with *rexerant*, for instance, to translate the termination *erant* even before he knows the meaning of *rex.* And I know from my own experience that if a child meets with *leo venerat*, "the lion had come," and is asked to compare *venerat* with *venerant*, he will see for himself, without any explanation, the difference; and if I ask for the Latin of "the wolf had come, the lamb had come," he will give at once *lupus venerat*, *agnus venerat.* I merely mention these facts to show that there is a certain sense in which, as Hamilton says, a literal analytical translation is at once a dictionary and a grammar. There is, then, much that is really valuable in Hamilton's notion of a strict literal translation, though, as has been pointed out by critics, such a translation sacrifices entirely the idiom of the mother tongue. Hamilton answers to this simply, that what we want really to know is the idiom of the foreign tongue, and that this is brought to view more clearly by the difference than by the resemblance. It was suggested to Hamilton that there should be two translations, one thoroughly literal, sacrificing, and a second free, preserving, the idiom of the mother tongue. Hamilton, who was in many respects an ignorant pig-headed man, repudiated this suggestion. I should myself reverse the order, and give the free, or idiomatic, translation first, and the analytical one afterwards, if two are to be given, but at all events, I would give a translation in beginning to teach, *i.e.*, direct the learning of a language. I have, however, preached long to little purpose if you do not see that the whole question resolves itself into the view we take of the intellect of little children. If we believe in this intellect and trust it, we look upon them as investigators, explorers, and discoverers, able when their feelings are interested, really to see and find out a thousand things for themselves, and with benefit by the exercise; while, if we distrust their intellect, we must, of course, tell and explain everything to them with no benefit to them by the exercise.

In closing this account of Hamilton's method, I will give a brief specimen of his translation.[29]

Le Champignon et Le Gland (The Mushroom and the Acorn). *Un gland tombé d'un chêne vit à coté un champignon. Faquin, dit il lui, quel est ta hardiesse d'approcher si près de tes superieurs?* (An acorn fallen from an oak saw at his side a mushroom. Scoundrel, said he to him, what is thy boldness to approach so near thy superiors?)

I next purpose to give some account of M. Marcel's admirable book on "Language as a means of Mental Culture and International Communication" (2 vols., London 1853).* I mention this book, not so much for the purpose of showing anything that can be called a special method in it, as for the purpose of recommending it as a most excellent treatise on education in general. M. Marcel's object is to discuss the value of language as a part of mental training, to establish its place in the order of studies, and to examine all the principal methods by which it has been proposed to teach it. He shows most conclusively that the first study in language must be that of the mother tongue, and that this must be based on the previous study of facts and objects, or, to use my own expression, we must first learn to read things, then learn to translate them into the words of our mother tongue, before we trouble ourselves about other people's words for the same things. M. Marcel, indeed, would form the mind of the child on his observations of the external world, in connection with speech, before he set the mind at work on learning a foreign tongue. But then he means by learning a language to learn it thoroughly, so as to gain power of expression in it, and at the same time an exact knowledge of its principles. Learning a language so as merely to speak it on ordinary occasions, involves little mental exercise, but learning a language so as to become master of its resources, connotes culture of the highest kind. M. Marcel, then, does not, I repeat, insist upon any special mechanical method, but takes his stand on the training of the mind generally, not, however, omitting to give practical directions. The spirit of his method is thus summed up by himself:—"Imitation initiates, practice acquires, grammar perfects, and habit secures the knowledge of a language." (Vol. II, p. 343.)

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* See Collected Works, vol. i, p. 66.

I strongly recommend all who have the opportunity to read M. Marcel's two volumes, which, however, are now very seldom met with.

But I ought, in conclusion, to give some account of Jacotot's method of teaching, *i.e.*, getting a child to learn a foreign language. I gave you some notions in the last lecture of his plan for teaching the mother tongue, but, in fact, his method is the same for every language. In his view every book, that is, every standard book, contains the essential characteristics of the language, and therefore he says, in his trenchant style, he who knows a book knows the language. There have been discussions without end on the meaning of this dogma, which, however, has after all a very definite meaning, surrounded, it is true, by a margin of indefiniteness. If, for instance, not knowing any other French book whatever, I make myself quite master of Télémaque so as to know it syllable by syllable, and even letter by letter, it is certain that by comparing the latter minutely with any detailed grammar I shall be able to show that every principle and rule of the grammar can be illustrated by some example to be found in Télémaque, so that in this sense this one book contains the language. But, on the other hand, if I only know this book, I shall cut a poor figure in Parisian society. I may, indeed, manage to get along, but I shall be obliged to employ roundabout expressions, and words whose meaning is somewhat obsolete, and shall prove every instant that I do not know the colloquial phraseology of the correct conversation of Paris. Still it will be true that I have in my possession the *point de départ*, and that the intelligence which has made me master of Télémaque—the power of organizing and observing, comparing, analysing, &c., which I have gained—will soon enable me to gain new combinations; and I shall therefore do what the human mind, bent on acquiring knowledge, does instinctively: I shall compare together the elements of knowledge which I have, so as to feel that I know what I know, and then go on referring to these elements, taken as standpoints, what I do not yet know.

Guided by principles like these Jacotot says to his pupils: "Learn a book, or fifty or twenty pages of it, so as to know it syllable by syllable. Repeat what you have learned so that it may not escape from your grasp. Refer by reflection and thought to the book or other pages of the same book to what you have, and lastly verify the observation of others. You may continue by comparing them with the facts you have, and then you will learn the language."*

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* See also Appendix to Lecture XI.

LECTURE XIII.

ARNOLD AND HERBERT SPENCER.

The name of Thomas Arnold very properly finds a place in Karl Schmidt's "History of Education," for although he founded no theoretical School of Education, nor ever, perhaps, even for his own use, reduced his principles to a system, yet he was emphatically a man of principles. He was an educator (and this forms his great distinction) whose simple object was to devise what appeared best for the school at the time. He had a theory of action certainly, and he carried it out, amidst almost unceasing varieties of practice, but any disposition that he might have had to theorise generally on education was kept in check by his desire to interfere as little as possible with the traditions of the school that he had to govern.

The life of this eminent man was not eventful, and a few words must suffice to tell you what is essential about it. He was born June 13, 1795, in the Isle of Wight, and sent when twelve years of age to Winchester College, where he became well known by a remarkably precocious gift for poetry, which procured him the nickname of "Poet Arnold," but not, it is said, by remarkable industry. In his sixteenth year he entered the University of Oxford, where he studied hard, and after a brilliant University career, became Fellow of Oriel College. Taking holy orders he occupied himself for some years in preparing private pupils for the University and in literary work. In 1828 he became Head-master of Rugby School, and held this office till his death on June 12, 1842. In the fourteen years of his Head-mastership he not only raised Rugby to a very high position among the public schools of England, but breathed into public school education—and may we not say into private school education also?—a new spirit, the force of which is not yet exhausted, and of which we see the effects every day.

These results could not have been attained without the exercise of great mental and moral force, and of such force Arnold possessed an ample store. He was a man of high intellectual gifts, and remarkable strength of will; not only a zealous and erudite scholar, but influenced by warm political sympathies; an ardent reformer, and at the same time imbued with a deeply religious spirit.

You will see, then, that Arnold was a schoolmaster and something more; but I do not think he was necessarily a worse schoolmaster on that account. Let us at all events hear what his biographer, Dr. Stanley, has to say upon the point, when speaking of Arnold's election as Head-master of Rugby.

"Even his general interest in public matters was not without "its use in his new station. Many, indeed, both of his admirers and "of his opponents, used to lament that a man with such views and "pursuits should be placed in such a situation. 'What a pity,' "it was said on the one hand, 'that a man fit to be a statesman "should be employed in teaching schoolboys.' 'What a shame!' "it was said on the other hand, 'that the Head-master of Rugby should be employed in writing essays and pamphlets.' But, even "if there had been no connexion between the two spheres of his "interest, and had the inconvenience resulting from his public "prominence been far greater than it was, it would have been the "necessary price of having him at all in that place. He would "not have been himself had he not felt and written as he did; and "he could not have endured to live under the grievance of remaining silent on subjects on which he believed it to be his most "sacred duty to speak what he thought.

"As it was, however, the one sphere played into the other. "Whatever labour he bestowed on his literary works was only part "of that constant progress of self-education which he thought essential to the right discharge of his duties as a teacher. Whatever "interest he felt in the struggles of the political and ecclesiastical "world reacted on his interest in the school, and invested it in his "eyes with a new importance" (Stanley's "Life of Arnold," Vol. I, p. 100).

I will not, however, by further general remarks, hold you back from the consideration of Arnold, as a co-efficient in the great work of education. It is, remember, Arnold as an educator that we have to deal with, not as a polemical writer. On the 8th of March, 1865, I read in this room a paper with the heading "Dr. Arnold as an Educator," and I shall interweave with this lecture some portions of that paper, and the rather as by doing so I shall bring into view some features of our general subject which, from want of time, I have not been able to treat in my course. I hold distinctly to the opinion which I have before expressed, that it is not only an advantage, but even a duty, for a teacher to make himself acquainted with the personality, the principles, and the practice of the masters of his art. It is a great mistake, moreover, to suppose that we who may be engaged in one department of education cannot learn much from those who have been earnestly engaged in some other, though widely different, department of the same field of action. Dr. Arnold, for instance, was the Head-master of a great public school, and young teachers of little children may imagine that what Dr. Arnold did and thought in this position can have little or nothing in common with the work they have to do while in their presumed inferior condition of life. I say this is a mistake which it is important to correct—(1) because in my view founded on a false assumption; for viewed naturally, the work, and consequently the position, of an elementary teacher employed in laying the foundation of the youthful mind, is in no respect inferior to that of any other teacher whatsoever; and (2) the bright example of excellence in the personal character or the work of a successful teacher ought to be, must be, operative on the character and work of every teacher who carefully and admiringly studies it. In the case before us, what ought to have taken place has taken place, for it is beyond a doubt that Arnold's life as an educator has greatly influenced the professional lives of other educators. In view of these considerations, let us give our best attention to Arnold as an educator. Even while I am uttering these words I am half disposed to recall them, for by insisting on the conscious intentional work of the educator I seem to be ignoring the unconscious influences exercised on all around him through the weight of his personal character. Yet how important this is must be acknowledged by the personal experience of every teacher now before me, for it is not merely what we do, but what we by our example cause others to do, that really defines our power. Every one of us is continually, though quite unconsciously, photographing his characteristic features on the minds of those around him, with a force proportioned to the light upon the object and the proper action of the receiving surface. Under these conditions, which are, however, continually varying, we effectually and ineffaceably impress our characters on the minds of others, and become in a greater or less degree a portion of their life. In Arnold's case, this was pre-eminently true, and there can be little doubt that what he effected as a professional educator was after all only a small part of what he effected as a man. It would, however, take us too far to consider this point in full. I return, then, to Arnold as an educator. Considering him from this point of view, we must remember that he was never engaged in building up the mind from its foundation. He had to do with minds already educated in our sense of the term, with minds in a great measure fashioned and in their leading features fixed by circumstances in which he had no share. He had to take these minds and characters as they were and to make the best of them. I do not think, for I see nothing in his letters or other writings to show it, that he knew anything of what we have called the science of education. He was distinctively a practical man, an empiric of the best kind. He was governed by two main principles. As a trainer of character, he aimed to make his pupils Christian gentlemen. As a trainer of mind to make them think. Round these two points as pivots revolved the ever varying arrangements of practice. "Rapid," says Dean Stanley, "as might be the alterations to which the details of his system were subjected, the general principles remained fixed."

Subordinate to these main principles, there were two or three others, without which these I have referred to would have been practically inefficient. The first of these, was that he had a high estimate of the importance and dignity of his profession. "Doing duty," which in the clerical profession, and some others, is a sort of technical phrase, descriptive of a mechanical performance of routine, in which duty in the true sense of the term has no part, had a real living meaning with Arnold; with him the School was "our great self," and the business of a schoolmaster, to use his own words, no less than that of a parish minister, the cure of souls.

Arnold showed his high estimate of the importance of his profession by—(1) devoting himself intensely to its duties; (2) by entertaining a deep sense of its responsibilities; (3) by incessantly carrying on his own education; (4) by continually aiming to improve his practice, while maintaining his principles; (5) by manifesting a high regard for work. I need not dwell on these points, they are essentially involved in what I have said already; I may, however, quote as regards the last point the words of one (Mr. B. Price) who was first a private pupil of Arnold's, and afterwards an Assistant Master at Rugby. "Dr. Arnold's great power," he says, "as a private tutor, was this, that he gave such an intense earnestness to life. Every pupil was made to feel there was a work for him to do, that his happiness as well as his duty lay in doing that work well. Hence an undescribable zest was communicated to a young man's feeling about life, a strange joy came over him on discovering that he had the means of being useful, and thus of being happy; and a deep respect and ardent attachment sprang up towards him who had taught him thus to value life and his own self, and his work and mission in this world. All this was founded on the breadth and comprehensiveness of Arnold's character, as well as its striking truth and reality; on the unfeigned regard he had for work of all kinds, and the sense he had of its value, both for the complex aggregate of society, and the growth and perfection of the individual." I have now sufficiently shown Arnold's high estimate of his profession. I have dwelt upon it, because I do not think it is, generally speaking, a characteristic of teachers. But it ought to be even of the lowest grade (if we must speak of grades) of teachers. You know well that I think that the most elementary instruction, as being the foundation of all the rest, requires especial artistic ability. A teacher, then, who has gained the requisite ability, through study, self-sacrifice, and practice, ought to regard himself as prepared for most honourable work, and pay homage to its demands upon himself. Arnold was, as we might have expected to find him, a first rate teacher. He loved the work, and eminently excelled in it. I will read to you, in Dean Stanley's words, an account of Arnold's mode of teaching.

"His whole method was founded on the principle of awakening
" the intellect of every individual boy. Hence it was his practice to
" teach by questioning. As a general rule, he never gave informa-
" tion except as a kind of reward for an answer, and often withheld it
" altogether, or checked himself in the very act of uttering it, from
" a sense that those whom he was addressing had not sufficient
" interest or sympathy to entitle them to receive it. His explanations
" were as short as possible—enough to dispose of the difficulty and
" no more—and his questions were of a kind to call the attention
" of the boys to the real point of every subject, to disclose to them
" the exact boundaries of what they knew or did not know, and to
" cultivate a habit not only of collecting facts but of expressing
" themselves with facility, and of understanding the principles on
" which their facts rested. 'You come here,' he said, 'not to read,
" but to learn how to read;' and thus the greater part of his
" instructions were interwoven with the process of their own minds;
" there was a continual reference to their thoughts, an acknowledg-
" ment that, so far as their information and power of reasoning
" could take them, they ought to have an opinion of their own.
" He was evidently working not for but with the form, as if they
" were equally interested with himself in making out the meaning of
" the passage before them. His object was to set them right, not by
" correcting them at once, but either by gradually helping them on
" to a true answer, or by making the answers of the more advanced
" part of the form serve as a medium through which his instructions
" might be communicated to the less advanced. Such a system he

"thought valuable alike to both classes of boys. To those who by "natural quickness or greater experience of his teaching were more "able to follow his instructions it confirmed the sense of the "responsible position which they held in the school, intellectually "as well as morally. To a boy less ready or less accustomed to it, "it gave precisely what he conceived that such a character required. "'He wants this,' to use his own words, 'and he wants it daily— "not only to interest and excite him, but to dispel what is very apt "to grow around a lonely reader not constantly questioned—a haze "of indistinctness as to a consciousness of his own knowledge or "ignorance; he takes a vague impression for a definite one, an "imperfect notion for one that is full and complete, and in this way "he is continually deceiving himself.'

"Hence, also, he not only laid great stress on original composi-"tions, but endeavoured so to choose the subject of exercises as to "oblige them to read and lead them to think for themselves" (Stanley's "Life of Arnold," Vol. I, pp. 143–4).

You cannot fail to recognise in these words some of the principles we have derived from other sources. You see that Arnold was not given to lecturing and prating in his class. He wished, as his history expresses it another place, that as much as possible should be done by the boys, and nothing for them, and had, we are told, an increasing conviction that it was not knowledge, but the means of gaining knowledge, which he had to teach. Arnold then would no doubt have been ready to agree with Dr. Temple, that a teacher's success may be measured by the degree in which he gets his pupil to teach himself. I need not, however, repeat what I have often said on this point, but I think the fact is noteworthy, that Wolf, the first German Scholar, and equally eminent school director at Halle, and like Arnold an enthusiastic teacher, was accustomed in his classes to give as little explanation as possible, justifying himself by the *quicquid præcipis brevis esto.* "Whatever instruction you have to give be brief," and also by the example of Tanaquil Faber, whose words he quotes as follows:—"Those are to be looked on as the worst teachers who interrupt their lessons by too much talking. They wish to say much, but they mostly say nothing, and they rather deafen their pupils, than really make things clear to them." Faber goes on to say, that we cannot expect, nor even wish, that the knowledge of young pupils should be severely systematic. If we attempt to make it such by our explanation we shall fail; in fact, the whole resolves itself ultimately into the principle contained in Rousseau's words. "In teaching himself, the child really carries with him that which he can carry, and nothing more." One of the features of Arnold's teaching, which must be a feature of all successful teaching, was his power of sympathy. Without this, teaching, instead of being leading and directing, becomes mere driving. With it the teacher is the guide, companion, and friend of his pupil; they perform the difficult journey by mutual co-operation. But then sympathy, to be really a reactive power, must be founded on knowledge. If I do not really know my friend, I cannot sympathise with him in his trials and difficulties, and, with the best intentions, I may wound him when I wish to heal, impede his movements when I wish to expedite them, entangle him the more in my attempts to set him free. The power of sympathising with his pupils in their difficulties, as well as in their successes, is then, I repeat, a prime qualification of a good teacher, and it was possessed by Arnold. When a boy, after treading his way anxiously through a difficult passage of Latin, arrived sucessfully at the end, and on looking up observed the pleased countenance, and heard the cheerful "thank you" of the master, he could not but feel how truly that master had sympathised with his thoughts, and looked on his success as a subject for mutual congratulation. "He calls us *fellows*," said one of the boys, soon after his arrival at Rugby. The last point I shall refer to as a striking feature of Arnold as an educator is his administrative ability. I need not show in detail the immense importance of this characteristic, not only in the case of a Headmaster of a public school, but in that of every one who has to govern a community, or even a single class of children in a school. A schoolmaster, we must remember, has both to make laws and to execute them, to take into consideration the cases that may occur for supervision or modification, to watch the fluctuations of popular opinion, to determine when to hold fast and when to loosen the bands of discipline, when to apply the curb, and when the spur. We are told that, as a general principle, Arnold governed the school precisely on the same principle as he would have governed a great empire, with a union of firmness and tenderness which enforced respect both for his head and his heart. He was stern in punishing grave offences, but, on the other hand, generous in the recognition of virtues, even when their amount was small, so pleased was he to acknowledge the presence of good in the midst of evil.

"Hence," says Dean Stanley, "arose his practice, in which his "own delicacy of feeling and uprightness of purpose powerfully "assisted him, of treating the boys as gentlemen and reasonable "beings, of making them respect themselves by the mere respect "he showed to them; of showing that he appealed and trusted to "their own common-sense and conscience. Lying, for example, to "the masters he made a great moral offence; placing implicit con-"fidence in a boy's assertion, and then, if a falsehood was dis-"covered, punishing it severely—in the upper part of the school, "when persisted in, with expulsion.

"Even with the lower forms, he never seemed to be on the watch "for boys, and in the higher forms, any attempt at further proof of "an assertion was immediately checked. 'If you say so, that is "quite enough. Of *course* I believe your word,' and there grew up "in consequence a general feeling, 'it was a shame to tell Arnold a "lie—he always believes one'" (Stanley's "Life of Arnold," Vol. I, p. 115).

I close this imperfect sketch by a passage in which Dean Stanley sums up the case.

"But whatever interest attaches to the more external circum-"stances of his administration, and to his relations with others, "who were concerned in it, is of course centred in his own "personal government of the boys. The natural effect of his con-"centration of interest on what he used to call 'our great self,' "the school, was that the separate existence of the school was in "return almost merged in him. This was not indeed his own "intention, but it was precisely because he thought so much of "the institution and so little of himself, that, in spite of his "efforts to make it work independently of any personal influence "of his own it became so thoroughly dependent upon him, and "so thoroughly penetrated with his spirit. From one end of it to "the other, whatever defects it had were his defects; whatever "excellencies it had were his excellencies. It was not the master "who was beloved or disliked for the sake of the school, but the "school which was beloved or disliked for the sake of the master. "Whatever peculiarity of character was impressed on the scholars "whom it sent forth, was derived not from the genius of the place, "but from the genius of the man. Throughout, whether in the "school itself or in its after effects, the one image that we have "before us is not Rugby, but Arnold" (Stanley's "Life of Arnold," Vol. I, p. 108).

HERBERT SPENCER.

I now turn from the practice of Dr. Arnold to the theories of Mr. Herbert Spencer, whose four essays on—(1) the comparative value of different kinds of knowledge; (2) on intellectual education; (3) on moral education; (4) on physical education—I agree with Mr. Quick in considering one of the most important works on education in the English language. I strongly recommend any one of you to get it, and to read it with all possible attention. As, however, it can be obtained without trouble, and at no great cost, I need not dwell upon it at length. The first essay is on the relative value of knowledge, and is, in fact, a discussion of the curriculum. Although Mr. Spencer is right in urging that science, which has been unjustly ignored in our schools, should have its rights duly acknowledged; when he claims, as he seems to do, that it should virtually exclude almost every other subject, I confess I cannot go along with him. Indeed, I think that his main argument involves a fundamental fallacy. Stated briefly it is this, that as the function which education has to discharge is how *to prepare us for complete living*, the child ought even while yet a child to learn everything which may conduce to the end. It would be easy to show from the manner in which the organism gradually acquires its powers, that it is quite impossible to comply with this demand. The growing mind, for instance, is utterly incapable of learning—*i.e.*, so as to know—the immense number of subjects necessary by the theory for complete living; and even if it were capable of getting a smattering of universal knowledge, such a knowledge would not be a preparation for complete living. It is quite extraordinary that Mr. Spencer, who shows us in his second essay how well he appreciates the problem of intellectual education, did not perceive that such education is directly opposed by its very nature, to the theory that the attempt to grasp universal knowledge is the same thing as a preparation for complete living. Whatever may be the future of education, one thing may I think be looked upon as certain, and that is, that education will never be a preparation in Mr. Spencer's sense for complete living. If, however, we mean by preparation the equipment of the pupil by physical, intellectual, and moral discipline, by securing for him a conscious command over the powers which he possesses, by furnishing him with a conscious possession of those comparatively few and simple ideas which form the substratum of the mind's subsequent acquirements;—in this sense, but only in this sense, is education a preparation for complete living. I need not, however, pursue this subject in this place. In a pamphlet I wrote some years ago, "The Curriculum of Modern Education," which you all or nearly all have, you will find it fully discussed, and as some think conclusively settled.* There is much, however, that is truly valuable in Mr. Spencer's first essay, in addition to the theory. The second essay, on "Intellectual Education," is most excellent. Most of what Mr. Spencer says on this point is in perfect accordance with the doctrines I have set before you in my lectures, though I have arrived at them by an entirely different course of inquiry. I will give you a few quotations.

"Rule-teaching is now condemned as imparting a merely
"empirical knowledge—as producing an appearance of under-
"standing without the reality. To give the net product of inquiry,
"without the inquiry that leads to it, is found to be both enervating
"and inefficient. General truths, to be of due and permanent use,
"must be earned. 'Easy come, easy go' is a saying as applicable
"to knowledge as to wealth. While rules lying isolated in the mind
"—not joined to its other contents as outgrowths from them—are
"continually forgotten, the principles which those rules express
"piecemeal, become, when once reached by the understanding,
"enduring possessions" (page 61).

"After long ages of blindness, men are at last seeing that the
"spontaneous activity of the observing faculties in children has a
"meaning and a use. What was once thought to be mere purpose-
"less action, or play, or mischief, as the case might be, is now
"recognised as the process of acquiring a knowledge on which all
"after-knowledge is based. Hence the well-conceived but ill-
"conducted system of *object-lessons*" (page 63).

"The truths of number, of form, of relationship in position,
"were all originally drawn from objects, and to present these
"truths to the child in the concrete is to let him learn them as the
"race learnt them. By-and-by, perhaps, it will be seen that he
"cannot possibly learn them in any other way" (page 64).

"Thus then we are on the highway towards the doctrine long
"ago enunciated by Pestalozzi, that, alike in its order and its
"methods, education must conform to the natural process of
"mental evolution—that there is a certain sequence in which the
"faculties spontaneously develop, and a certain kind of knowledge

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* See Collected Works, Vol. I, p. 239.

" which each requires during its development; and that it is for us " to ascertain this sequence and supply this knowledge. All the " improvements above alluded to are partial applications of this " general principle" (page 66).

Mr. Spencer lays down as the result of his investigation the following principles:—

I. " In education we should proceed from the simple to the complex." I cannot quite agree with Mr. Spencer's principle as thus stated. You will remember that long ago we arrived at the conclusion, that the mind teaching itself has no power to begin with the simple. Its very first experiences are of the complex, and it cannot possibly have any other. It is important to insist on this, for the contrary assumption aims at the very heart of analytical teaching, and if I rightly apprehend it, demands that didactic synthetic teaching which I have throughout denounced as opposed to the self-teaching which we see in nature. But when Mr. Spencer explains this as meaning that we should proceed from the *single* to the *combined*—*i.e.*, I suppose, from single facts to their combination into generalizations—truths really more complex in contents though simpler in form—then we find no difficulty in accepting it. Without some such explanation, indeed, this first principle of Mr. Spencer's seems opposed to the second, which he thus propounds:—

II. "The development of the mind, as all other development, is an advance from the indefinite to the definite." In this I fully agree. Under this head, Mr. Spencer says:

" It is not practicable, nor would it be desirable if practicable, to " put precise ideas into the undeveloped mind. We may indeed " at an early age communicate the verbal forms in which such " ideas are wrapped up; and teachers who habitually do this " suppose that when the verbal forms have been correctly learnt, " the ideas which should fill them have been acquired. But a " brief cross-examination of the pupil proves the contrary." . . . " Thus in education we must be content to set out with crude " notions. These we must aim to make gradually clearer by " facilitating the acquisition of experiences such as will correct " first their greatest errors, and afterwards their successively less " marked errors. And the scientific formulæ must be given only " as fast as the conceptions are perfected " (page 74).

III. Our lessons ought to start from the concrete and end in the abstract.

" General formulas which men have devised to express groups of

" details, and which have severally simplified their conceptions " by uniting many facts into one fact, they have supposed must " simplify the conceptions of a child also. They have forgotten that " a generalization is simple only in comparison with the whole mass " of particular truths it comprehends, that it is more complex than " any one of these truths taken singly, that only after many of " these single truths have been acquired does the generalization " ease the memory and help the reason. . . . The mind " should be introduced to principles through the medium of " examples, and so should be led from the particular to the " general—from the concrete to the abstract" (page 74).

This principle is, as Mr. Spencer says, in part a repetition of the first. It shows what he means by the simple and the complex, and thus, as I have already pointed out, interprets his first principle to us. With all this of course I entirely concur.

IV. "The education of the child must accord both in mode and arrangement with the education of mankind considered historically. In other words, the genesis of knowledge in the individual must follow the same course as the genesis of knowledge in the race."

This theory I have not formally expounded to you, not because I do not receive it, but because I do not look upon it as of much practical importance.

V. "In each branch of instruction we should proceed from " the empirical to the rational. During human progress, every " science is evolved out of its corresponding art. It results from " the necessity we are under, both individually and as a race, of " reaching the abstract by way of the concrete, that there must be " practice and an accruing with its empirical generalizations, " before there can be science" (page 77).

This principle is valuable, and accounts for the position that the earliest instruction, that of little children, ought to be desultory rather than systematic, to consist of skirmishing practice, with a view to exercise, to elicit and prove the powers, rather than to organize their action.

VI. "In education, the process of self-development should be " encouraged to the utmost. Children should be led to make their " own investigations, and to draw their own inferences. They " should be *told* as little as possible, and induced to *discover* as " much as possible." Mr. Spencer goes on: "Who indeed can " watch the ceaseless observation, and inquiry, and inference going " on in a child's mind, or listen to its acute remarks on matters " within the range of its faculties, without perceiving that these "powers it manifests, if brought to bear systematically upon "studies within the same range, would readily master them without help? This need for perpetual telling results from our "stupidity, not from the child's."

VII. "Education should create a pleasurable excitement in the "pupils. This," says Mr. Spencer, "is a final test by which to judge "any plan of culture." He says: "The repugnances to this and that "study which vex the ordinary teacher, are not innate, but result "from his unwise system. Fellenberg says: 'Experience has taught "'me that *indolence* in young persons is so directly opposite to their "'natural disposition to activity, that, unless it is the consequence "'of bad education, it is almost invariably connected with some "'constitutional defect.' And the spontaneous activity to which "children are thus prone is simply the pursuit of those pleasures "which the healthful exercise of the faculties gives. Experience "is daily showing with greater clearness that there is always a "method to be found productive of interest, even of delight, "and it ever turns out that this is the method proved by all "other tests to be the right one" (pp. 79, 80). These are Mr. Spencer's principles of intellectual education. He then goes on to show how they may be reduced to practice. But I must leave you to read what he says in his book.

Mr. Spencer's third essay is on moral education. In this he propounds, and illustrates in a very interesting manner, the general theory founded in Nature's plan of action, that a child's character is to be formed not by didactic moral precepts, but by allowing free action to his powers under the condition that the consequences of this action are to form the check, and therefore the proper punishment for it which is wrong. To discuss this doctrine, which is by no means self-evident, would, however, take up too much time. I cannot touch Mr. Spencer's interesting fourth essay on Physical Education, but again I say, read Mr. Spencer's book.

CONCLUSION.

And now I furl my sails to make for land. It is not without much regret that I take leave of so many on whose pleasant faces I have been so long accustomed to look, and break the contact which has so long held our minds together. I hope that they all carry with them, not only some of the knowledge that I have brought before them from various quarters, but also all the spirit which I have endeavoured to infuse through my lectures. My object has been a very simple one, yet, if really achieved, one of immense importance to you as teachers: it was to revolutionize your notions about teaching, to upheave and cast away what is usually held to be the foundation, and to put another, and I think a surer one, in its place. I have endeavoured to explode the doctrine, that the teacher's action is to be governed by the assumption of the child's incapacity and stupidity, and that, therefore, that we must deafen him with explanations which require explanation, load his memory with unintelligible words, empty of ideas, and leave the filling of them with meaning to the chapter of accidents. I have endeavoured to show you, that by acting on the other assumption, that the child is not incapable, not stupid, until we make him so, the whole field of view is changed. The child is then seen to contain within himself a reservoir of forces ready to expend themselves and really expending themselves in spontaneous action, and the teacher appears as a loving and intelligent guide to their direction; in other words, the child comes before us as a self-teacher, and the educator as a superintendent of the child's own process of learning. I have endeavoured to lead you to this conclusion, not by authoritative imposition of my own opinions upon you, but by placing you in the position of observers of facts and phenomena, that you might see and acquire for yourselves that these things are so, and in this way to make yourselves your own teachers. If at any time I may seem to have dogmatized, to have knowledge, to receive anything simply on authority, I must ask you to believe what is really the fact, that this has arisen merely from the exigency of our circumstances, for after all 35 or 36, or say 40 hours of teaching, is a short time for going over the vast field of fact and doctrine which we have had to explore. On looking back over our course, I am satisfied generally with the *method* I have adopted, though far from satisfied with the execution. I shall probably next year try the same method, and get you to take a more direct part in the lecture, while I still profit in the carrying out of it by the experience I have gained.

And now I say farewell, and in so doing thank you warmly for the assiduity, zeal, and earnestness and kind feeling you have manifested during the course. If I have succeeded in possessing you with a few simple ideas which, well wrought into the organic life of your minds, may serve as the germs of successful action on your part as teachers, I shall have accomplished my purpose.

A VISIT TO GERMAN SCHOOLS.

A VISIT TO GERMAN SCHOOLS.

NOTES OF A PROFESSIONAL TOUR

To inspect some of the Kindergartens, Primary Schools, Public
Girl's Schools, and Schools for Technical Instruction, in
Hamburg, Berlin, Dresden, Weimar, Gotha,
and Eisenach, in the Autumn of 1874.

WITH

CRITICAL DISCUSSIONS OF THE GENERAL PRINCIPLES AND PRACTICE OF
KINDERGARTEN AND OTHER SCHEMES OF ELEMENTARY EDUCATION.

By JOSEPH PAYNE,

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Member of the Council of the Philological Society, &c.

SECOND EDITION.

1884.

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PREFATORY NOTE BY THE EDITOR.

This little book was founded on Notes taken by Mr. Payne during his tour in the autumn of 1874, and reduced to its present shape in the spring of 1875. Various causes hindered its publication until, after my father's return from his summer journey, the state of his own health and the shock of a painful bereavement made it impossible for him to give any further attention to the subject. The manuscript accordingly remained untouched up to the close of the Author's life and labours in April 1876, and was thus never fully prepared for the press, or finally corrected.

Notwithstanding this drawback, and although the information conveyed is not perfectly recent, these brief notes cannot, it is thought, fail to be of value and interest, as recording the direct impressions, and embodying the mature judgment, of a highly-qualified observer in matters of education.

One explanation only seems desirable to make. Such a work as this cannot, of course, make any pretension to give a general account of the state of German education, even in a single department, since it is founded on the personal experience and impressions of one journey only. It is thus possible that some practices actually observed in particular schools and institutions may not be universally prevalent, and that on another occasion, or in another place, a different impression might have been derived. But this seems, from the nature of the case, unavoidable; and as dates and places have in all cases been given, it has been thought better to let the Notes stand for themselves, without the additional information which friends would willingly have supplied, and which the Author, had he been able to see the work through the press, might probably have made use of.

The Editor has, in conclusion, to thank Miss Gurney, Professor Hodgson, and the Rev. R. H. Quick, for many valuable suggestions, and for their kind assistance in revising the proof sheets.

J. F. PAYNE.

Savile Row, London,
September, 1876.

PREFACE.

In the following pages I have given an account of a month's visit to many of the Kindergartens, several of the Primary Schools, and some of the Training Colleges of North Germany. The main purpose I had in view was to investigate the methods and theories of the very earliest education—that which begins with children of between the ages of three and eight. It was not so much the advanced structure as the foundation that I wished to examine—to see how this foundation was laid, and to form a theoretical judgment on the value of the work. I have long been of opinion that what we especially want in England is a just estimate of elementary education; meaning by that term what Pestalozzi and Fröbel meant—the earliest stage in the cultivation of children's minds. In England this conception is generally confounded with that of elementary instruction, with which it is, strictly speaking, but remotely connected; and hence all our efforts are directed to instruction, while education or culture is extensively neglected. Instruction—that is, the systematic imparting of definite knowledge—should be the sequel, not the precursor, of the training of the intellectual powers which are to be employed upon the acquisition. In other words, the object of elementary education is to develop the natural faculties, that of elementary instruction to apply them. It would be easy to show this; if we make instruction our chief aim, we necessarily introduce dogmatic, didactic teaching, which, as a rule, depresses the native powers; whereas if we make education—that is, cultivation—our chief aim, we elicit the native powers, and make the best of them.

Entertaining these views of elementary education, I wished to see how far they were carried out in Germany: and after careful observation I am able to report that in the Kindergartens, and in the Primary Schools (those especially of Saxony), they serve as the theoretical basis of the system pursued; and, moreover, that where this theoretical basis is established, there the soundest and most fruitful instruction is secured. The results justify the theory.

The question, then, whether we shall educate with a view to instruction as in Germany, or instruct with a view to education as in England, is, I venture to think, answered by the facts. No sane person will challenge a comparison between the average results of German primary education and of ours.

Those who are interested in this important question will find in my Narrative some of the grounds for forming an opinion upon it, though, as I have intimated, I concerned myself only about the teaching in the Kindergartens, and in the lowest classes of the Primary Schools.

My reasons for thus limiting my examination (besides the want of time) were these—First, I wished to judge of the Kindergarten *per se*, of its value both as a mere occasion for the happy employment of little children's exuberant energies, and with regard to the subsequent education and instruction; secondly, to see the junction of the Kindergarten with the first stage of school instruction, and to estimate its value in this relation; and, thirdly, to examine the lowest classes of schools in which the children, being over six years of age, had received no preliminary teaching.

The conclusion I arrived at was, that there is a substantial value in the exercises of the Kindergarten, which pleasurably bring out the active powers of the children—their powers of observation, judgment, and invention—and make them at once apt in doing as well as learning.

No apology, perhaps, is needed for the judgments which I have freely expressed on the spirit and the actual methods of elementary teaching in Germany, whether in Kindergartens or in the ordinary Primary Schools. A considerable experience in the art, and a long-continued study of the theory of education, will, I trust, be accepted as my warrant for expressing such judgments. Even in Germany, the land of scientific pedagogy, it is not rare to find avowed principles of action neglected or imperfectly carried out.

To every one who carefully considers the state of education in England, and who compares the promise of theory with the results of practice, it will be apparent that the reform we need most begins at the beginning, with a true conception on the part of the teachers of what education really means. This involves a radical correction of the ordinary theories; and this, again, a thorough education of the teachers in education itself. Now that the Bell Trustees, by their liberal grant of £10,000 towards the endowment of Chairs of Education at Edinburgh and St. Andrews, have recognised education as a psychological art, founded on scientific principles, we may hope to see some effective measures taken for the training of teachers. The question of training teachers for their high office will, it is to be hoped, henceforth supersede much of the profuse prate about education in which dilettanti inexperts and "educationists" are so accustomed to indulge.

If the facts and discussions of this little volume shall be found to have contributed anything satisfactory towards the solution of that question it will have answered its purpose.

JOSEPH PAYNE.

KILDARE GARDENS, LONDON,
February, 1875.

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NOTES OF A PROFESSIONAL VISIT TO THE KINDERGARTEN AND OTHER SCHOOLS FOR PRIMARY INSTRUCTION IN NORTH GERMANY.

INTRODUCTION.

Considerable interest had been awakened in my mind by the study of Fröbel's *Principles of Elementary Education*, as well as by some excellent specimens of their practical application which I had seen in London. The result of this interest was, that I delivered in February 1874, at the College of Preceptors, a lecture upon the subject. My lecture was strictly confined to as clear an account as I could give of the genesis of Fröbel's root-idea—that it is by studying the nature of the child that we are to learn how to teach and train him; and I showed, moreover, in a brief sketch of Fröbel's personal history, how this principle, which looks so obvious, but is so generally ignored in our treatment of little children, developed itself both from the life-experience of the man, and from his profound observation of the nature of children; in fact, from his heart as well from his head. Before I had ever heard Fröbel's name, I had arrived at a conclusion nearly identical with his, namely, that in our ordinary education of young children we give them far too little credit for the powers with which the Creator has endowed them, and too frequently, by injudicious management, repress or even quench those manifestations of intelligence which ought to be taken as the basis of our operations. In other words, I had clearly seen that, instead of allowing children's native activities free scope, and aiming, especially in our early lessons, at eliciting what is in them, we are generally far too prone to impose upon them what is in ourselves, and therefore, by system, rule, and routine, to check, and sometimes even to stifle, natural development.

I had further convinced myself that this unwise interference with nature's laws was the true cause of a phenomenon within the observation of all—that of a child who, before formal teaching begins, is distinguished for mental activity, becoming almost suddenly dull, inert, and stupid under the operation which is ostensibly intended to quicken his powers—a result obviously due to a theory of education which takes little or no account of the nature of the child.

These and other similar considerations had prepared me fully to accept the principle expounded in the lecture already alluded to;—in which, too, I further developed Fröbel's notions respecting the spontaneous play and movements of the mind as the divinely appointed means for developing the powers of the child, and described the series of exercises which he devised for making play and self-activity greatly fruitful in every education.

It occurred, however, to me, that it would be advisable, before I lectured again on the subject, to give my full attention to the theory of the Kindergarten, and to see something more of the practice—especially in those places, Hamburg, Berlin, &c., where it was most skilfully and correctly carried out. I wished, moreover, to satisfy myself as to the effect (respecting which I knew there was some controversy) of the training of the Kindergarten on the subsequent educational career of the children; and knowing already what was said for the system by its numerous enthusiastic advocates, I wished also to hear on the spot what was said against it by its opponents. In order to form an accurate judgment, this was especially important. Lastly, I wished to ascertain in what special respects, if any, the Kindergarten was an improvement on our ordinary infant schools.

My purpose, then, was clearly defined. It was to visit Kindergartens conducted by thoroughly trained teachers, to see how far they realised the ideal presented in Fröbel's writings, and try also to visit elementary schools where children were received who had passed through the Kindergarten, and where the fundamental principle was still worked, as well as other elementary schools which were quite independent of the Kindergarten.

It may be as well to state here (though the fact is generally known), that what we call national education is, throughout Germany, the business of the respective Governments, who regulate that it shall commence when the child is six years of age, and shall be continued for at least eight years.[1] Whatever instruction then may be given to children before they are six years old, is properly no affair of the Government, which, therefore, does not reckon the Kindergarten as part of its system. This is the rule, to which there are some exceptions.[1] While in Berlin, however, I was informed that the Minister of Education—Dr. Falk—had recently taken much interest in the subject, had visited some of the Kindergartens, and had even said that in the new Prussian school regulations, which are expected to appear shortly, he proposed to include Kindergartens. This, however, was doubted by some well-informed persons, who thought the recognition improbable, on account of the strong prejudice of many, if not most, of the regular Prussian schoolmasters against the system. I can scarcely doubt that the adoption of the Kindergarten into the Government system generally would be greatly to the advantage of the children, in two respects at least. It would secure a better average of trained Kindergarten teachers. The Government would demand, in all probability, a more uniform degree of excellence than now prevails. I was told by way of apology in one or two cases, that the demand for teachers was so great that it was necessary for the present to put up with the best that could be got; and I can easily believe, from my own observation, that by no means all that are employed in Kindergarten have a definite grasp of Fröbel's principles.

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[1] By a recent regulation of the Minister of Instruction, it is now ordained that, in Saxon schools, the course shall be eight years for the lowest, and ten years for the highest grade of primary schools.

Then, again, if the Government authorities took the matter in hand, they would certainly secure far better accommodation for the children than is provided in not a few establishments that I visited. Small, petty, ill-lighted rooms, carefully shut up against the admission of fresh air, but accessible to the most noisome stenches, and inconveniently crowded with children, were matters of my personal experience, even in some of the most flourishing towns. Indeed, considering the difficulties of this kind which in many cases beset the path of the young inquirers after knowledge, it was surprising to see the amount of physical and intellectual life which was everywhere displayed. The apology generally given for this miserable accommodation, in the instances to which I refer, was, that it was impossible in large towns to have suitable rooms except at an enormous rent. I cannot, of course, controvert this plea, but it certainly did occur to me as very desirable that the Fröbel-Verein, consisting of a large number of most respectable ladies and gentlemen, might, with great probable ultimate advantage to the children, take a course of lectures themselves on hygiene.

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[1] In the last Government Report of Saxony the Kindergarten is recognised as part of the system; and it is mentioned that an institution for training Kindergarten governesses has been lately established in Dresden; of course with the support of the State.

Having thus given some idea of the present position of the Kindergarten in relation to the general arrangements for primary instruction in Germany, I proceed to my personal narrative.

Furnished with many letters of introduction to persons of education and influence in Hamburg, Berlin, Dresden, Weimar, Gotha, and Eisenach, I arrived in the first-named town August 23, 1874.

HAMBURG.

My first visit was to the noble institution which goes by the name of "Gewerbeschule für Mädchen" (Girls' School for Technical Instruction), established by a voluntary society for the promotion of women's occupations (*Verein zur Förderung weiblicher Erwerbsthätigkeit*). The stately building—a beautiful specimen of architecture—was opened for use in December 1873, and is now a complete hive of busy bees. I regret that I have no time to describe it in detail. I can only say that I have never seen an establishment of this kind—hardly of any kind—in which the arrangements are so complete. The twenty-five class-rooms (adapted to the accommodation of 750 students), lofty, spacious, and admirably ventilated "by the best American system, which has not before been applied on the Continent," appear to be everything that could be desired, while the apparatus for heating in winter is as complete as that for ventilation. The arrangements have in view instruction not only in the practical arts of washing, ironing, cooking, sewing with needle and machine, cutting-out, and general housekeeping, but also in geometrical and free-hand drawing, lithography, porcelain painting and burning. But this is far from all: the establishment contains (1) a high class school for girls who have passed through the upper classes of the ordinary schools. Here instruction is given in the German language, arithmetic, book-keeping, physics, geometry, &c. (2) Classes for the training of Kindergarten teachers. (3) A Kindergarten for children of from three to seven years of age, open from 9 to 1.[1] This is the merest outline of the broad features of a very remarkable institution which well deserves the attention of those who are now interesting themselves in the question of finding occupation for women, and who sometimes appear to forget the preliminary question of preparing women for occupation. Nothing is more certain than that one of the great difficulties in finding employment for women is in finding women competently equipped for undertaking it. I have Miss Emily Faithfull's authority, as well as that of others, for making this assertion. Miss Faithfull is besieged daily with applications for work from women who do not know what work is, nor how it should be done so as to be worth paying for. The object of the Hamburg institution is to train women for doing good work, which must always have its value in the market.

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[1] The reader will observe in the fact that "Kindergartenism" is adopted as an important—rather *the* important—basis of instruction in this grand institution,—a noticeable testimony in its favour. The founders and supporters of the *Gewerbeschule* and of the *Verein* are persons deeply interested in education, who, in providing for the training of Kindergarten governesses, and in ctsablishing a Kindergarten, commit themselves, of course, to the recognition of its principles.

Having taken a general view of the institution under the bright and intelligent guidance of the head-mistress, Frau Dr. M. Glinger, I stayed behind in the beautiful rooms given up to the Kindergarten.[1] I saw nothing afterwards at all comparable in fitness for their purpose to these rooms, so lofty, airy, and full of light. There were three long low tables, with forms corresponding, and at these were seated what seemed a mere handful of children (there were only fifteen), busily engaged not in feeding their minds, but their bodies. It was just past eleven, and they were taking what was called their breakfast, which they had brought with them, and which consisted of bread (possibly with butter on it) and milk—each one being supplied with a plate and jug. When this slight refection, which could not have burdened the system much, was over, they rose up to march and sing, all looking very rosy and happy. Marching to the beat of the songs they sang (*Tritt und Gesang*) was, I found in all the Kindergartens, a frequent occupation of the children; and a very noticeable feature of this exercise was the accuracy with which it was generally performed. Sometimes it consisted merely in stepping one after the other with a single beat of the foot; at other times it was varied by an accented stamp thus:— | | ┃ | | ┃ | | ┃, &c.; but I noticed that in all cases the measure was well preserved. There can be no doubt that this is not one of those bodily exercises "that profit nothing." It stirs the blood, animates the whole system, and dissipates the tedium liable to arise from much sitting, and is in every way adapted to the powers of the children. It was evidently very popular. About the singing of the songs I shall have something to say afterwards.

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[1] I extract from the report of the institution a paragraph which represents in a few words the theory and practice of the Kindergarten system. "The purpose of the games and occupations of the Kindergarten is the harmonious development and cultivation of all the intellectual and bodily powers of the child. They lead him to become conscious of those powers, and to make use of them—to exercise the eye in the observation (*Anschauung*) of suitable forms, the hand in works which he performs as plays, the ear through simple melodies which delight him, the understanding through stories, narratives, and games which rouse his attention and fix in his mind accurate notions (*Vorstellungen*) and general concepts (*Begriffe*). Lastly, in his intercourse with his little companions he learns to become happy, sociable, and peaceable (*heiter, gesellig, und verträglich*)."

After a few minutes thus employed I was invited to be present at an artistic little melodrama (*Bewegungspiel*) entitled the "Maüselein," in which all the children except one held hands and enacted "butter," "cheese," "bacon," "cake," &c. The child in the middle of the ring was Master Maüselein (*i.e.*, Mouse), who went about touching (which was taken for tasting) the different articles of food—for which indulgence he had to pay dear in the end, being at last caught in a trap formed by some four or five of his companions amid the rejoicing of the whole party. This little drama of action was dexterously performed, and seemed a favourite with the children, as I witnessed it twice afterwards at other Kindergartens

On a second visit to the Kindergarten, I found the Mistress (a very kind, earnest, and intelligent young lady) telling the children the story of a lion, in which they were intently interested, listening with staring eyes, half-open mouths, and brows almost sternly wrinkled. When the story was done, the teacher asked a few questions upon it, which were promptly and eagerly answered. One little child was on the teacher's lap during the time: but in none of the Kindergarten that I saw were any arrangements (such as we sometimes meet with in our infants' schools) for the sleeping of the children. Everywhere they were decidedly wide awake.

At both these visits I saw also something of the training of the young Kindergarten teachers by the head-mistress, Miss H——. In the first instance I attended a lesson given to about twenty-six young girls (ages fourteen to twenty), neatly dressed, very orderly and attentive, and rather superior in air and manner to some that I saw elsewhere. The lesson was a geometrical form, which some of them drew (not very cleverly) on the black board. As it is the essence of Fröbel's theory to build everything on the concrete, I was rather surprised that no actual solids, which would have shown the origin and relations of geometrical forms, were before the class. Such bodies had, perhaps, been already palpably examined. Still the lesson was decidedly interesting, from the earnestness displayed by both teachers and pupils. I was struck here and in other teachers' classes with the absurd number of rings worn by the girls.

I may also here remark that it occurred to me that these girls, many of them not more than fourteen or fifteen years of age, begin their direct training for governesses far too early. I heard of no indispensable previous general culture, at least nothing beyond a sufficient school instruction (*eine genügende Schulbildung*); and as the training for the Kindergarten lasts generally only one year, during which nearly twenty-four subjects are to be taken up,[1] it is easy to see that many of the teachers must be turned out in a very crude condition. This remark may perhaps have a special and limited application, but of the principle involved I have no doubt. As in the case of our own pupil teachers, so here, it seems to be assumed that immature and unformed minds are competent, after a little technical drill, to take upon themselves the training of other minds, especially those of very young children; whereas the truth is, that the highest artistic skill cannot be thrown away, nay, rather is required, in the earliest stage of a child's development, if the foundation is to be surely and firmly laid. In the interesting prospectus of this very institution it is clearly laid down (see note, p. 10) that "the purpose of the plays, games, and occupations of the Kindergarten is the harmonious development and cultivation of all the intellectual and bodily powers of the child—to lead him to become conscious of those powers, and to make use of them," &c. I quite approve of this programme of the objects in view, but I am at the same time convinced that a year's training for a girl of fourteen years of age cannot possibly prepare her to carry it out; and I am further of opinion that for fourteen years of age seventeen ought to be substituted. Up to this latter age the general education of those who are intended for teachers ought to go on without interruption. This is one of the weak points which lie open to the attacks which afterwards, at Berlin, I heard made upon the system. It is, indeed, idle to talk of "the harmonious cultivation of all the intellectual and bodily powers of a child," if the carrying out of this very comprehensive programme is to be left in any appreciable measure to girls of fourteen or fifteen after one year's training. Now it is just in proportion to the demands of Fröbel's theory that provision must be made for its realisation. Up to the time of the exposition of his views, there was no theory to work up to. Now there is; and in order to realise it, much more than has yet been done (I speak in a general way) must be done to secure it for accomplished teachers. On my second visit to the training classes I found the young teachers engaged in gymnastics, still under the personal direction of Miss H——. I was pleased with their graceful rhythmic movements, governed by the music of a piano, and accompanied by singing. They were thirty-five in number, some few of them probably over thirty years of age. They went through various evolutions, winding in and out among each other in a way which was very pretty and picturesque. They also used with aptness and skill staves and wooden rings. This lesson was followed by one on singing. First the young ladies sang the "Hirtenruf" from a collection of songs by Karolina Weseneder of Brunswick (respecting whose system of teaching music I everywhere heard great praise expressed) in unison. Then came some part-songs (among them a very pretty air called "Frühlingslust"), and, lastly, exercises in scales and intervals from a book by Voigt. These exercises were, on the whole, the most satisfactory part of the performance, inasmuch as they trained and showed the possession of the power of singing at sight. The notes were well held, and even difficult passages were gone through with much apparent taste.

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[1] I append the somewhat extraordinary list of "Subjects of instruction in the one year's course:"—"The German, English, and French Languages, Home Knowledge (*Heimathkunde*), Arithmetic, Geometry, Physics (*Naturlehre*), Natural History, Elementary Physiology (*Lehre von dem menschlichen Körper*), and the Laws of Health (*Gesundheitslehre*), Drawing, Singing, Gymnastics, Needlework (*Handarbeit*); the Art of educating and instructing (*Erziehungs- und Unterrichtslehre*), Training in the Use of the Fröbellian Appliances, Practical Exercises in the Kindergarten." Prodigious demand, assuredly, on the intellectual energies of one year! even though in certain cases (*in gegebenen Fällen*) instruction in foreign languages and *Handarbeit* be dispensed with.

During my stay in Hamburg, I visited for the whole of one evening (four hours) the great school for working men and boys (*Die Allgemeine Gewerbeschule*), which is under the able direction of Mr. Otto Jessen, who is also the director of the Gewerbe school for women. As my attention was exclusively given during this visit to the drawing department, and as I had no opportunity of returning to the school, I can only give a few particulars. It is an institution for the teaching, in classes carried on both by day and evening, as well as on the Sunday morning, men and boys of fourteen and upward, all those branches of instruction which have a bearing on their actual or intended employment for life. The programme is most comprehensive, embracing the German and English languages, Arithmetic, Algebra, Geometry, Trigonometry, Book-keeping, Physics (*Naturlehre*), Architecture, Drawing of every kind, Modelling in clay and wax, Lithographic Drawing, &c., all of which are taught, with their application to practical life and business. The number of students was, in the summer of 1873, 987, in the winter 1873-4, 1366. The school is founded and sustained by grants from the municipality of Hamburg, together with a small contribution provided by the fees of the students. This same liberal-minded municipality has voted a sum of 800,000 thalers (about £120,000) for the building of a new schoolhouse (now rapidly approaching its completion), with which are connected a Realschule and a Trades Museum. When shall we have half-a-dozen such institutions in London?

The drawing department of the institution is, by general acknowledgment, second to none in Germany. For my own part, I had never seen anything approaching it in completeness and excellence. The special point of interest to me was, that drawing was taught from beginning to end through the training of eye and hand in connection with real objects. There is, except at the close of the course, no copying from drawings, and the teachers do no part of the work for the pupils. Wooden blocks of different forms are used to begin with, and not only the outline as presented to the eye was drawn in strong lines on the paper, but the outlines of the parts not seen were estimated by measurement with the eye and traced on dotted lines, as if the object was transparent. These blocks were placed in all possible positions, and drawn over and over again. Then followed other objects—candlesticks, vases, plaster reliefs, parts of machines, whole machines, articles of furniture, &c. Then there was pattern-making, designing, drawing on lithographic stones (an extra hour being devoted to this), modelling in clay of leaves, &c., water-colour drawing, &c. Specimens of all these different kinds of art were produced under my eyes during my visit, and the marked excellence throughout could only be attributed to the method pursued, essentially consisting, as it did, of keeping close to the object before the eye, and without trick or sham of any kind, representing it as truthfully as possible. It is a noticeable feature, that high finishing is not allowed in the time of instruction. If the student wishes to add this grace to his work, he must do it at home. The practical, the useful, that connected with trades and occupations alone, is sanctioned in this very remarkable school. The accomplished director himself accompanied me in my visit to the several class-rooms, and gave me, through the kind interpretation of Professor Wiebe, who was with me, every explanation.

Altogether the two *Gewerbeschulen* interested me exceedingly; they are noble institutions. I saw nothing anywhere else to match them. Nor is this remarkable, inasmuch as they are the first of their kind, both in chronological order and in excellence, in Germany.

One day I accompanied Professor Wiebe to see the Pestalozzi-Stift (or, as we should perhaps call it, the Pestalozzian Asylum) at Braberc, three or four miles from Hamburg. In a forlorn, out-of-the-way situation, we arrived at a large handsome house, on entering which we found ourselves at once in a spacious central hall carried up to the roof, with open galleries continued round each landing. The effect was, on the whole, rather striking. The master, an intelligent-looking man, came forward to meet us, and accompanied us over the building.

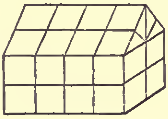
The rooms of the institution are spacious and airy, furnished with good solid chairs, tables, and desks. It was near dinner-time and the children were at play. We were told that they were seventy in number—boys and girls—taught together; two-thirds of them boys, and generally from six to fourteen year of age. There are no school hours after twelve; then the boys work in the fields connected with the house, and the girls at their needles, or at sweeping, cleaning, bed-making, &c. There are three teachers—all men. After a time the children came in to dinner, all with their hair cut close to their heads, and, the boys especially, notwithstanding their outdoor work, looking far from healthy. After they had taken their seats at the table, where each had a chair, one said grace, and the operation of dining commenced. It was a remarkably simple operation. Large wooden tubs filled with boiled rice were brought in by some of the boys, placed before a young woman, the housekeeper, and forthwith ladled out by her into the plates held for it by different elder boys and girls, who take the messes to the several tables. This, without salt or sugar, was their sole dinner; varied, we were told, occasionally by boiled beans and peas. Sugar is allowed only on *fête* days. Meat is given three times a week. Some of the children had two or three helpings of rice, but many only one. Breakfast consists of bread and milk, or of grits boiled in milk. Supper of bread and water only. This undelightful and not very nutritious meal was eaten in solemn silence: water, apparently not *ad libitum*, washed down the rice. After the dinner was over we accompanied the master, who offered to show us the dormitories. We found them very clean and airy. The one we entered was furnished with thirty-five iron bedsteads and good arrangements for washing. The children go to bed every night at nine o'clock.

On descending into the hall, we found all the children assembled and prepared to give us a song. They were in two divisions, and they soon burst out, singing most delightfully in part "Die Wacht am Rhein." I have scarcely heard anything so sweetly harmonious. I noticed that half-a-dozen of the children ran up the stairs as if with some special object in view. That object was soon apparent. A fresh song was begun, in two parts as before, and at the close of the stanza, echo, with delicious gentleness and sweetness, repeated the last few notes from the top of the house. The effect was truly charming. Poor children! they must have a hard life of it—rice without sugar for dinner, dry bread and limited water for supper, rough work in the fields, and (perhaps) rugged tillage in the school (but this I don't know); and with all this a good master, who, I hope, is gentle with them; but, in spite of everything else, they learn to sing delightfully, and there is some comfort at least in this. I have often since remembered their singing with pleasure, and contrasted the general effect with that produced by much of the singing in the Kindergartens, which, possibly from some defect in myself, possibly because my ear is especially sensitive to tune and harmony, was very often far from satisfactory to me. Time with the Kindergarten mistresses and their little pupils is generally a prime consideration, but I cannot say as much for tune, meaning by this the tasteful harmony of sweet sounds.

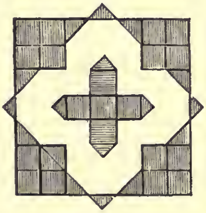
Singing is an important feature of Fröbel's system, and I do not think it is executed nearly as well as it might be by the little birds of the Kindergartens. Here, as is so generally the case in education, it is the teacher who is at fault; the materials are all there, but the teacher fails to make the best use of them. The germs of art, however feeble, are in the native constitution of every child, and though not always able to struggle of themselves into the light, they can be nursed and developed into power—that is, some measure of power—by the teacher on the outside, if he is himself an artist in education. But all teachers are not artists in education; and this, again, not because they are naturally incapable, but because they are not naturally "informed" and inspired with the pregnant conception that the teacher's function is generative and even creative, and they therefore believe themselves incapable without actually being so. They are unconscious of the powers they really possess, and they are unconscious of their own powers because they do not appreciate those of the children they teach; and lastly, they do not appreciate the children's powers, because they do not study carefully the nature of children. They should go to Fröbel, and learn from him what children are, and what they can do when artistically handled. It is a very important consideration that the product of education, after all, depends mainly on the teacher. The number of stupid children is really very small, but the number of children who are left stupid—that is, of those whose powers are undeveloped—is very great; and this number is mainly dependent on the teacher, with whom it rests very much to decide whether these powers shall be ignored, developed, or stifled. The bad teacher is a *menticide*, who deserves punishment quite as much as the unskilful medical practitioner who is called into court to answer for his delinquencies. Hence it happens that young minds, that might have been quickened into life, remain dead, buried, and forgotten.

I visited in Hamburg some of the "*Bürger Kindergärten*," of which there are, I believe, nine in different parts of the town. In one of them I found several children, a division of whom were busily occupied in constructing various forms, and building with the little cubes of the fifth "gift." The fifth "gift" presents a cube as divided into twenty-seven smaller cubes, and these are divided diagonally into fifty-four half cubes or prisms. Thus considered, it affords opportunity for forming (1) life-objects; (2) beauty-objects; (3) knowledge-objects.

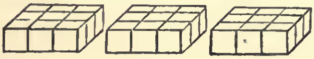
The first class represents such forms as this—

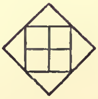


The second such as this—



The third such as these—

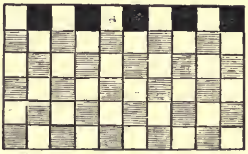




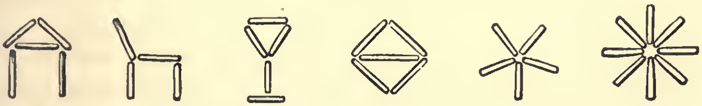
The children were engaged in dealing with forms of the first kind; that is, in building forms of life—real objects. They looked happy in their occupation, though it was carried on under very unfavourable circumstances. The room belongs to a Turnverein, which assembles in the evenings for gymnastic exercises. It was bare, rough, and gloomy, while the atmosphere was sensibly impregnated with the lingering fumes of the holocaust of tobacco which had been offered up on the preceding evening. It was, perhaps, a result of the unconscious influence of the surroundings that the teachers here were less kind in manner and tone to the children than was usual elsewhere. As some sort of counterbalance to these disadvantages, there was, however, a small yard or garden for the children to play in, and some little disorderly beds of plants and flowers were pointed out to me as the children's.

I may here take the opportunity of saying that Fröbel's notion, that the children of the Kindergarten are not only to be regarded as human plants themselves, but also as cultivators of real plants, remains still, for the most part, unrealised. I saw very few gardens at all connected with the institution, and those that I saw were scarcely worth a second glance. They were generally overgrown with sprawling plants, or given up to the dominion of weeds. Nor did I see a single instance in which children were at work in them. Indeed, it is obvious enough that things, in most cases, must be so. In large towns where the system is in vogue, and where, I believe, it will still take deep root and flourish, it is next to impossible to obtain adequate space for the experiments in actual gardening. If, indeed, I may venture an opinion, which will, I am aware, be unacceptable to some of the enthusiastic followers of Fröbel, I should recommend the gradual disuse of the term Kindergarten altogether. Interpreted by facts as they are, it has no special propriety. The Kindergartens are really preparatory schools for very young children, and nothing else. The methods adopted in them may and do differ greatly from those of ordinary schools, but when these, in process of time, are modified, as they will be, so as to form a continuation of the same system, the name will lose its speciality. A child of six or seven years old is as much a human plant as one of three; and the school, as a place for culture, is as much Kindergarten as that which now bears the name. If it is the age only on which the distinction depends, then we have a distinction without a difference. All this will sound very heterodox, no doubt, in the ears of some of the enthusiasts I have referred to; but when they understand that I agree with them as to the value of the thing, they will perhaps tolerate my quibbles about the name. I fully believe myself that, though this foreign name has been temporarily adopted in England and America, neither this nor that of Kindergärtner (gardeners) for the teachers will be permanently employed.

Several of the Hamburg Kindergartens are under the immediate superintendence of a number of ladies and gentlemen, forming a committee of the Fröbel Verein (a Fröbel Union), the headquarters of which are at Dresden. The ladies of the committee, and the president, who is a Mrs. Johanna Goldschmidt, very kindly take turns in visiting the schools of the Union; and I could distinctly see the good effects of this care in the character of their special institution. In one of them that I visited there were thirty children—ages from three to seven—paying nearly £4 a year each. The rooms, though not large enough, were commodious and cheerful, and the children, when I arrived, were industriously interweaving strips of coloured paper (*Flechten*), which they did very deftly, and with evident satisfaction to themselves. This work consists in plaiting strips of paper, so as to form various designs, the effect depending on the symmetrical arrangement of the different colours. The little workers, armed with needle and thread, draw the slips in and out amongst others already laid down to form the groundwork of the pattern, an exercise requiring much more attention and thought than might at first sight be expected. The following specimen will give some idea of the work:—



The children had been engaged, I was told, since nine o'clock in (1) building with cubes; (2) in "stick-laying," or making different forms on the flat table. This consists in placing little sticks (*stäbchen*) in various relations to each other, as this—



(3) In games and gymnastics. While I stayed, there was a good deal of singing, not very well conducted, for the teachers could not be complimented on their own sweet voices; and I invariably

remarked that the tone and quality even of the children's voices depended greatly—and for obvious reasons—on those of the teachers.

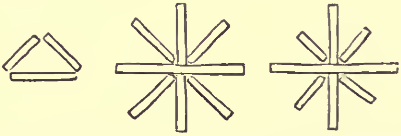
I observed, on looking out from one of the windows, some little flower-beds, belonging, as I was told, to the children, to which the remarks which I have previously made were applicable. The children altogether looked a very happy little community, earnestly engaged in their occupation, and happy because earnestly engaged. And herein lies one of the great truths which Fröbel brought to light and made practical. He saw more clearly, perhaps, than any one before him, that the secret of happiness is occupation—the healthy employment of our powers, whatever they may be. This is especially true of little children, who are scarcely ever contented with simply doing nothing, and whose fidgetiness and unrest, which often give mothers and teachers so much anxiety, are merely the strugglings of the soul to get, through the body, some employment for its powers. Supply this want, give them an object to work upon, and you solve the problem. The divergence and distraction of the faculties cease as they converge upon the work, and the mind is at rest in its very occupation. The nature of the work makes very little difference, and even its sameness does not weary. It becomes interesting, simply because it gives scope to the energies, and concentrates them. I frequently had occasion to notice that the children were doing over and over again what I knew that they had often done before, and I once inquired whether the teacher did not find that the children got tired of the apparent sameness and monotony. "Look at them!" was the reply in this case, "and see whether they appear tired." I did look, and could see no symptom of weariness, but, on the contrary, earnest, contented, even pleased absorption in the work. What more was to be desired? They were observing, comparing, contriving, sometimes inventing, and all the while gaining practical skill in manipulation. They were working towards an end, and I often saw them stop for a moment and contemplate with delight what they had achieved. On one occasion a bright-eyed maiden of two and a half years old, after placing her little sticks in various forms which did not quite please her, at last hit upon one which did. She looked at it for a moment, then suddenly clapped her hands, chuckled with delight, and called her neighbour to observe the feat she had accomplished; and then clapped her hands vigorously again. She had satisfied the desires of the mind—had gained a result of her own devising, and felt in her small measure the joys of invention.

In this school I noticed that reading, writing, and elementary arithmetic were taught to the children over six years of age. This, which the rigid purists of the Kindergarten system generally regard as an innovation, is, in my opinion, a very desirable innovation, forms the proper transition and introduction to the work of the ordinary school, and constitutes a fitting application of the principles already carried out. It is desirable for this reason, if for no other, that the children thus prepared can take their place in the ordinary school without experiencing the sudden shock which those children experience who are at once transferred from the play-work of the Kindergarten to the routine work of schools in which as yet Fröbel's principles are unknown. My own opinion is, that the programme of the Kindergarten should cover the period from three to eight years of age, an extension which would admit of the fixing and solidifying by practical application of the rudimentary knowledge gained in the numberless instructive exercises of the Kindergarten proper, and for want of which much that is learnt there is in danger of being overlaid or lost. It is not enough to know—we must have a conscious knowledge. If what we learn is to gain a firm footing in the mind, and become a real possession, we must know that we know. Now, the addition of two years to the ordinary Kindergarten course would give the opportunity for converting casual knowledge into real knowledge, and for fixing firmly in the mind the valuable ideas gained through the practical exercises in observing and using the forms (including surfaces, edges, angles, &c.) of the sphere, cube, and other solids, as well as for carrying onward the drawing and arithmetic, and learning more and more of the properties of material objects. It is a mistake into which many outsiders fall, to look upon all that is done in the Kindergarten as so much play. It begins with play, certainly, but it does not end in play. A great part of it is play that has work in view, and *is* work—unless we are prepared to deny that name to the constant exercise of the observing powers, with the attendant comparison and discrimination and judgment; to the equally constant exercise of the imaginative faculty in the development of contrivance and invention; to the cultivation of taste by singing, drawing, rhythmic movements, &c.; to the training of the moral feelings by association of the children with each other, and to the attainment of deft and correct manipulative skill. All these objects, and many others that are incidental, come within the scope of the Kindergarten, and it is absurd to deny that they are all more or less intellectual in their nature and aim, and therefore to assert that they are mere play. At the same time it must be admitted that the ideas obtained through these means are of a strictly rudimentary character, and are wanting, of course, in definiteness and accuracy. And therefore it is that some extension of the course is desirable, with a view to the further development of the thinking powers, and to the converting unconscious into conscious knowledge. In connection with this remark, I am bound to say that I saw but little of definite developing power among the Kindergarten teachers of Germany. There is far too much telling and doing for the children what they ought to be required, even young as they are, to do for themselves; and it is this very general tendency to the mechanical which lays much of the practice of the teacher open to the sharp strictures which I have already referred to. I may add, moreover, that I was much surprised that on no one occasion did I witness a lesson on objects. I do not say that such lessons are never given, but it certainly never was my fortune to be present at one. The only objects I saw in the hands of the children were those constituting the various "gifts," and to these, as far as I am aware, their lessons were strictly confined. Not a flower, twig, leaf, stone, out of the boundless variety of Nature's stores, nor any models of artificial productions, came into the lessons. This appears to me a serious omission. and requires an explanation. The "gifts" are most valuable. I certainly would not supersede their use, but they are not everything; and it appears to me that no day should pass in the Kindergarten without a lesson on some object of nature or art. I have felt myself compelled to make these remarks, but I shall be glad to be set right if I have fallen into error as regards this very important matter.

Nothing in the early education of children is of more importance than the cultivation of their observing powers by means of the objects with which they are in immediate contact. The names of the children themselves, their age, the number of the members of their families; the names and direction of the streets they pass through in coming to school; the number of houses in these streets, the shops of various kinds in them; the animals they meet with; the carts, waggons, coaches, &c., that they have seen in the way; the weather, with its various incidents; the trees growing in the neighbourhood, the river flowing near them, the hills seen from a distance, the fields in which they play, or those they pass by in taking walks, the soil of the fields, the crops growing in them, the occupations of men that they witness; the smithy, the barn, the threshing-floor, the carpenter's shop, the sowing, ploughing, haymaking, reaping, harvesting, &c.;—to all these matters their attention should be directed, and *the results of their own observation, not the observation of the teacher*, elicited. Then, descending into particulars, let each child tell how many rooms are there in his home, how the rooms are used, the colour of the walls, the pattern of the paper; what the houses are built of; how many windows, doors, chimneys, &c.; have they gardens? what is grown in them? what flowers, herbs, vegetables, trees, &c.? Then the schoolroom—how many walls, windows? how many desks, tables? how high? how long?—the dimensions being referred to an actual rule and measured by themselves. Then let them say how many books there are on the table; how many leaves in a given book; how many lines in a page; what is the weight of a book or any other object (ascertained by actual weighing it themselves with scales); also the weight of a given object, guessed at by poising it in the hand, and then let the accuracy of the guess be tested by weighing; how far is a tree, a pool, the end of the playground, off, to be guessed at, then tested at by measuring done by themselves; how high is a wall, ascertained by counting the layers of bricks and measuring the thickness of a brick, &c., &c. In all these exercises, which are numberless, the actual observation of the children, their own personal experience, should be the means and the limit of the knowledge. Nothing need be told them but conventional names—their senses and their minds should do the rest, without help from others. It is truly wonderful that all exercises of this kind are, as a rule, unknown in our primary schools, where they would be especially valuable—the result being that the scholars go forth into the world with eyes that do not see, ears that do not hear, and minds undeveloped. The knowledge of things that lie about them in daily life, knowledge which Milton emphatically points out as the prime wisdom, is studiously ignored. They are left "unpractised, unprepared, and still to seek;" and what is even more important, the consciousness of their power to acquire such knowledge by their own efforts is never awakened.

I visited the Fröbel-Verein Institute for training (1) Kindergarten nursery governesses; (2) Kindergarten teachers. This institution has also a private Kindergarten in connection with it for the practice of the teachers, but this I did not see. Mrs. Goldschmidt kindly accompanied me, and introduced me to the intelligent head-mistress and the young novices, who numbered about forty. These pleasant-looking maidens sang for my entertainment some pretty songs, accompanied by the piano, and further indulged me with two well-enunciated recitations, together with a specimen of the movement-play adapted to the children of the Kindergarten. I was very favourably impressed with the earnest interest manifested throughout, and only regretted the narrowness of their accommodation. The rooms were small, and not well adapted to the purpose of the institution. The informing spirit, however, appeared active, large, and generous.

Next morning I again visited the same establishment, in order to be present at Professor Hoffman's weekly lesson to the young students. I was much interested by the Professor's appearance, and by his quiet appropriate manner towards them. They too, on their part, seemed to have a perfectly good understanding with him, looked very happy in their work, and indulged every now and then in ebullitions of innocent fun, which did not, however, hinder their serious attention to business. The girls were occupied, when I entered the room, in laying down on the table folded slips of white paper forming various figures (*schnürstreifen*). These, I was told, were representations of forms of "Life," "Knowledge," and "Beauty" (*Leben-Kenntniss-Schönheitsformen*). Here are some specimens of them—



There was here a field for considerable ingenuity and taste, but I was surprised to see that the demand for these qualities was strictly confined to an imitation of what the teacher did. The girls were told almost everything—scarcely anything required of them but rigid performance. The argument for this was, that these were the very exercises the children were to be carried through in the Kindergarten,—an argument plainly insufficient if the object of the Fröbel principle is, as I believe it is, to develop a direct native power. Not only were the girls told in every instance exactly what they were to do, but were also told, even when the case was most obvious, how to correct every mistake. "This is too short," "That is too long," "You must do so and so," were words of constant occurrence, when "Correct this by looking again at the pattern" would have been amply sufficient, as it is an article of our educational creed, that the learner's blunders are to be corrected by himself, and thus to be utilised for his benefit. I was proportionally disappointed at the mechanical nature of this teaching which made so little demand on the intellect of the pupils. My convictions on this point were strengthened when, in the second lesson (on network drawing), I heard the teacher, in his criticism of the work, telling the girls most assiduously what was perfectly obvious. "This line is not straight," "These lines are not wide enough apart," "This line should be horizontal, that perpendicular," &c.—remarks all perfectly just, but also perfectly unnecessary in the case of girls of sixteen or seventeen years of age.

The vice of "telling" seems quite ingrained in teachers generally, and is very commonly even regarded as a virtue. But I hold it to be a fundamental canon of teaching, never to tell a pupil what he can find out for himself; and the canon is, I am bound to assert, violated to a very great extent (I cannot, of course, say universally) in the training schools for Kindergarten governesses. The consequences are naturally seen when these governesses take the charge of children themselves; and hence the tendency to formal mechanism, on which I have already made some remarks. It may be said, perhaps, with some truth, that Fröbel himself, by laying down a definite plan of training, through his "gifts," and by his strongly insisting on its strict observance, countenanced and authorised to a certain extent mechanical action. This, however, is a case in which the letter "killeth," while the "spirit quickeneth;" and I am persuaded that those are very imperfectly acquainted with Fröbel's principles who force their practical application into so narrow a groove; at the same time, I suspect that even Fröbel himself did not firmly grasp the principle, that the child, who is naturally a self-teacher, is to be a self-teacher throughout. The great truth, however, that comes out of Fröbel's researches into the nature of man is, that education consists in an everysided culture of all the human faculties only. What he means by culture is development, not "telling," which is too generally the antagonist, not the minister, of culture. There is a sense in which it may be truly said, that we know—that is, consciously know—nothing that we are merely told by others.[1] What we really know, so as to possess as a part of ourselves,—of our organic life,—comes out of our personal experience in thought or action. We know in this sense what we have felt, what we have acquired by contact with the realities of nature and life; but we do not know, for instance, in this sense, the distance of the sun from the earth, nor Kant's theory of the origin of ideas.

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[1] Faraday was accustomed to say that he never received as a fact what others told him, until, by working upon it himself, he had made it his own. It was a fact to him only when it became fact through his own personal experience.

Whatever value may be attached to these remarks, one thing is certain, that in early education we must take as the basis of our operations the phenomena of natural development, the experiences of the children themselves, and on them erect our system of teaching. This is what is meant by Fröbel's great principle, as I construe it, that we must learn, by studying the nature of children, how we are to teach them; just as Bacon taught that we are to learn from nature the laws by which we are ourselves to govern nature. The choicest fruits of Fröbel's ideas will be gathered only when the teachers of the teachers are profoundly impressed with it themselves, and, above all, impress it upon them. This, at present, is not, so far as I have observed, by any means generally the case.

I left Hamburg deeply impressed with the educational activity everywhere manifested, with its noble institutions for early and advanced instruction, and with the generous public spirit of its authorities.

BERLIN.

On the 30th of August I arrived in Berlin, and on the following Monday commenced my mission in that city by visiting a private Kindergarten, conducted by Fraülein Sperling, where I found thirty or forty children of from three to seven years of age busily engaged in breakfasting at half-past ten. After their simple repast was over, they commenced "building" with little wooden cubes and tablets. This I found everywhere a very favourite "work" of the children, and one in which they generally display much ingenuity. It consists in forming with the objects just mentioned seats, sofas, columns with pedestals, crosses, doorways, flights of steps, walls, little houses, &c. (see p. 217). The children never seemed wearied in varying these forms in every possible way. It is an exercise suited in all respects to their powers, and by means of it, as I have elsewhere said, "play exhibits the characteristics of art, and 'conforms' (to use Bacon's words) 'the outward show of things to the desire of the mind,' and the child learns not merely to imitate, but to create."[1] In consequence, too, of the exact geometrical conformity of the cubes and tablets (the dimensions of the tablets having always a fixed definite proportion to those of the cubes), notions of precision and symmetry are necessarily acquired. It is remarkable to see with what zest and earnest seriousness the children engaged in this systematic building.

The next exercise consists of movement-games, accompanied by singing; and as I nowhere saw these games better carried out than here, I will describe some of them in detail.

1. *The Sportsman.*—The children forming a large ring with joined hands, and singing a song adapted to the subject, one of them is detached to represent a midge disporting itself in the sunshine. He runs round the circle, throwing his arms about to imitate flying. Another child is then detached to represent a sparrow, who attacks the midge, and swallows it up (a large demand on the imagination, certainly). The midge vanishes and the sparrow remains. A hawk (another child) immediately pounces on the sparrow, and despatches him, but not with impunity, for a sportsman, who had been on the watch for the hawk, shoots him, and he

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[1] See *Fröbel and the Kindergarten System of Elementary Education,* pp. 129, 130 of this volume.

falls to the ground, to the great delight of the children, who thereupon utter an animated shout.

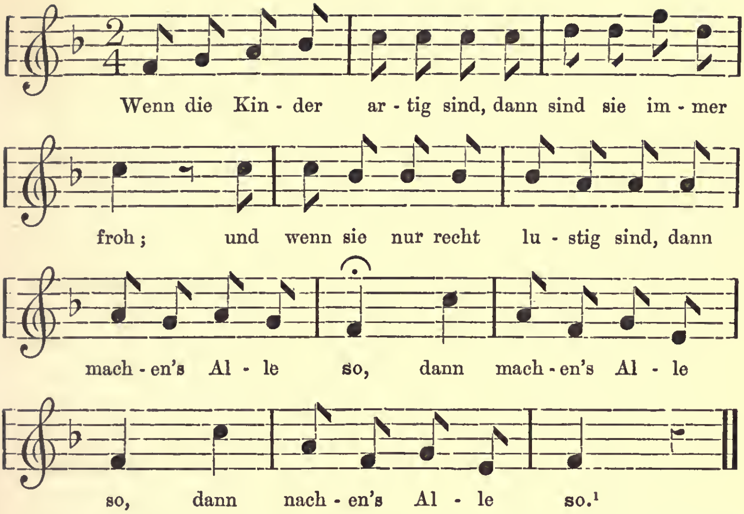
2. *The Horse and his Rider.*—One child represents the horse, and another, laying hold of the horse behind, follows him as the rider. They set off very merrily; the horse is fresh, but soon shows symptoms of weariness. The pace slackens. He steps in front of one of the children, who represents the ostler of an inn, gets a bait and a drink, and steps on vigorously. Again, however, the pace becomes slower. He has cast a shoe. He stops at a smithy; the blacksmith comes forward and nails on a new one. The horse goes on again, and comes to the gate of a town where the rider pays a toll. After awhile the pair start for the homeward journey, the rider reaches his house, distributes presents that he has brought amongst his children, and receives their thanks. All is mirth and jollity.

3. *The Seasons.*—One child is selected for each. To begin with, Spring stands in the middle of a ring formed by the rest. All lift up their hands and sing the song "Spring" (*Frühlingslust*), to denote joy and satisfaction. Then Summer takes his place, wiping his heated brow. Haymaking begins, and the movements of the haymakers are imitated. Summer's song is sung amid rejoicings. Autumn comes next, and reaping, harvesting, and so forth, are represented. Then Winter succeeds, shivering, stamping with his feet, rubbing his hands. Then the four Seasons join hands and dance prettily together; and lastly all take part, waltzing with real grace in pairs. My heart, I confess, danced with them.

4. *The Mill.*—Four children placed crosswise form the mill; the movements of their arms, the sails. Then others bring corn to the mill, which turns round and grinds it. It is then carried off amid songs and shouts.

5. *The Cooper's Shop.*—Wooden and steel mallets and chisels are brought in, as well as a plane, sawing-block, and a tub. The song begins, and the workmen all hammer together at the tub, the clank of the steel tools giving a pleasing variety to the general effect.

6. *Doing as I Do.*—This consists in the singing a little song by a child in the middle of the circle, who, when he arrives at the word "so," claps his hands, or imitates reaping, or hammering, or what not. Thereupon the song is repeated by all the children, who do together what the leader has done. I give the words and the music as an average specimen (by no means the best specimen) of the sort of thing which exercises very pleasantly the voices and the wits of these little ones.


Wenn die Kin - der ar - tig sind, dann sind sie im - mer
froh; und wenn sie nur recht lu - stig sind, dann
mach - en's Al - le so, dann mach - en's Al - le
so, dann nach - en's Al - le so.[1]

These movement games are, of course, very numerous. Köhler gives in *Die Bewegungspiele der Kindergärten* no fewer than 275 specimens. They also seem to be entered into by the children with great enjoyment. They practise the limbs, voices, and wits very effectually, and moreover give peeps into the world of business and real life. They afford, too, opportunities for the exercise of the moral virtues, by requiring mutual concession, sympathetic aid, and harmonious co-operation. The little things were very polite (*artig*) to each other, and often displayed much innocent archness and fun. They were certainly very happy.

One morning I went to see the Victoria-Schule, one of two noble public schools for girls. The other is the Louisen-Schule. The Victoria-Schule, which is under the direction of Dr. Haarbrücker, educates about 950 girls; the Louisen-Schule, under the direction of the learned philologist, Dr. Mätzner, 850.[2] A few particulars respecting the former, which, however, for want of time, I only partially inspected, may be interesting. It was opened in 1867 with 259 scholars in 7 classes. It has now 950 scholars in 18 classes. Besides the rector there are 28 teachers (5 "head" and 10 "ordinary;" 9 women; 1 teacher of singing, 1 of music, and 3 supernumerary), who are each engaged from 20 to 25 hours per week. The stipend of the rector is 1,700 thalers, that of the first head teacher 1,400, and that of the rest ranging downwards to 350 thalers per annum. The inclusive school fee is 30 thalers per annum. The curriculum of obligatory subjects consists of religion, the German language and literature, arithmetic, French, geography, history, natural history (with physics, or *Naturkunde*), writing, drawing, singing, needlework (excused in the higher classes if desired), and gymnastics. English is an optional subject, but it appears that in the winter of 1872–3, out of 279 scholars, who from their position in the school were at liberty to take it or not, only seven failed to do so. The teachers are generally persons of high qualifications, and the results of their teaching are spoken of as very satisfactory. The average number of pupils in a class is about 50. This indeed is prescribed as the maximum, but it is not strictly adhered to. The religious profession of the parents is in 835 cases Protestant Evangelical, in 107 Jewish, while there are only two "Dissidents" and nine Catholics. The school is a city foundation, and is under the direction of the authorities of Berlin. It takes its name from that of the Crown Princess, who has shown much interest in it, and was present at the opening.

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[1] The translation is—"When the children are well behaved, then they are always happy; and when they are very merry, then they all do *so*."

[2] I had a pleasant chat with Dr. Mätzner, who greeted me as a fellow-member of the Philological Society, and he was, although in his 75th year, radiant with health and intelligence, and told me that he still hoped to complete his unfinished dictionary of Old English, though it would require ten years of hard work to do it.

As my special purpose was to see elementary—not advanced—teaching, I gave most of my time to a class (the 8th) of about sixty children (ages nine and eleven), who were learning a lesson in arithmetic. They were working a very simple sum in what we call short division, which they did by long division thus:—

$$\begin{array}{lcr} 79:5 & & 15 \\ \underline{5} & & \underline{5} \\ 29 & \text{And then for proof,} & 75 \\ \underline{25} & & \underline{4} \\ 4 & & 79 \end{array}$$

This was all done on the black board with the teacher's figures, but by the work of the scholars, who were closely questioned on each operation, and gave the figures which the teacher registered. There was nothing so remarkable in the lesson as the earnest, fixed attention of the children. The order was perfect. All the sixty seemed to give themselves up to the work as if they were one; yet I consider that the number in the class was at least double what it ought to have been; and even the perfect order, which was unbroken, helped to cover the delusion that the minds of all could be suitably and simultaneously developed. Comparatively few pupils were able, under the circumstances, to answer at all, and it too frequently happened that the same individuals came to the front and did the main work of the class. I was shown some paper books, ruled in squares, in which the scholars were required to enter every rule on a separate page, one sum. All these books seemed very neatly kept. The text-book, including only the first four rules, and, as is constantly the case in Germany, without any answers to the examples, was "*Betgradt und Schüff's Recherfibel.*"

I entered one of the French classes in which a lady was the teacher, whose power over the fifty scholars was observable in their fixed attention and apparent interest. The teaching was most careful; the questions she asked on the text, as well as on the grammar, were for the most part correctly answered, but the pronunciation was decidedly bad.

In conversation with Dr. Haarbrücker on the Kindergarten, I heard some of the objections, which he fully endorsed, to the Kindergarten system—not, however, as he was careful to say, against the principles so much as the practice. The first was, that Kindergarten children, when received at the school, were so restless and fidgetty that it took two or three months to get them into order. Having been so much accustomed to play, they brought the play-spirit with them, and it was very difficult to exorcise it; and as for making it work, that was out of the question. He could not allow any interference of play with school business. Even in the intervals between the lessons, when the girls got into the fresh air, they were not allowed to play—play disorganized them. They could walk up and down—that was quite enough. A Kindergarten child, then, was a nuisance, and the first business the school had to do with her was to clear her head and heart of the fond delusion of associating learning with amusement. Secondly, there was too much routine and drill in the Kindergarten. It destroyed originality, and made the children all alike. It was altogether mechanical. It did occur to me to ask Dr. Haarbrücker whether he considered that the ordinary school teaching, in classes of sixty children, for instance, under one teacher, gave much opportunity for developing individual originality, but I forbore—partly because I could not muster my poor German speech-forces for the occasion, and partly because I wished rather to hear than to discuss objections. Thirdly, the system was handed over to ignorant girls not out of their teens, who had not been thoroughly trained by general education, had undergone no examination (he meant by the Government authorities), and could do nothing else.

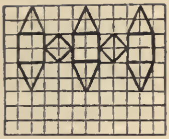
I listened to these objections in silence, but while in my secret heart I acknowledged that there was a tincture of plausibility in them, I felt that on the whole they were unfair and unreasonable. One can easily believe that there may be some difficulty in bringing a Kindergarten child accustomed to much freedom of action and thought, and also to receive much individual attention, all at once under the bonds of routine; but then, on the other hand, one cannot but believe that the quickened intelligence—for this can hardly be denied—would amply compensate in the end for the lack of order at the beginning. And I further cannot help thinking that to assume that the moment the clock strikes and the child is six years of age, she is to cease to be a child, and forthwith to be treated as if all she had heretofore learned was of no account, is a very large and unwarrantable assumption. That it could be made, however, was only an argument the more for my belief, that to give the Kindergarten a fair chance, its course must be extended so as to include the elementary studies of the school proper. The initiation at the arts of reading, writing, and arithmetic would necessarily mitigate to some extent the superabundant hilarity and joyousness which the regular schoolmasters of Berlin have, it appears, so much trouble in putting down before their lessons can take effect. I am quite of Jacotot's opinion, opinion, that "*on ne s'instruit pas en s'amusant*," but I am also of the opinion of the Fröbel authorities, that instruction in the strict sense of the term ought to find no place in the training of a little child of from three to six years of age. Instruction, as the word denotes, is the systematic building of knowledge into the mind in accordance with a preconceived design, and has therefore nothing in common with the spontaneous liberation of forces which constitute the speciality of the Kindergarten, and which aims rather at fashioning the building-stones for future use than at fitting them prematurely into their places. Both the object and the means, therefore, are different in the two cases.

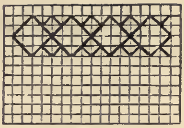
As to the objection that the Kindergarten destroys all originality, it is simply amusing. If cultivating the powers of a child on all sides of his being, or in accordance with his nature, does not give scope for originality, then of course we must try what the drill and cramming order of teaching will do for him.

It will, however, be very surprising if this should turn out to be the true remedy. The third objection, for which there are some grounds, no doubt, will be met by making the Kindergarten governesses more thoroughly competent for their work, through a stricter habit of discipline than is now generally demanded from them. Not one of these objections, nor any others that I heard in Germany against the Kindergarten, are of the smallest weight, in my opinion, against the overwhelming evidence furnished by its theoretical soundness and its practical efficiency.

In one of the Kindergartens I was present at a lesson, which I could not but pronounce a total failure. About sixty children (aged from three to six) were seated in front of their little tables, making three sides of a square. In front of them was a teacher—a very young one, certainly—with her arms behind her, telling them a story (*Erzählung*). There was no expression in her face, and of course she used no gesticulation. She looked straight before her into the air, not into the minds of the children, and tamely proceeded with her narrative, without stopping, and without putting a single question to them. The effect of this style of dealing with her class was very soon evident. The children were utterly unconcerned about the lesson, consequently paid no attention to it, and forthwith began to create for themselves the interest which the teacher had failed to create for them. They talked noisily, laughed with each other, pulled each other about, and even, in some cases, left their seats. The teacher seemed not to notice the disturbance, but went on unmoved to the end, by which time she had lost all control over the class. The lesson, in fact, had not only accomplished nothing, but had demoralised the children. The effect was strikingly different from what I had witnessed in other cases of *Erzählung*, in which the children's interest was so intensely excited that they could with difficulty be restrained from acting out themselves the various incidents described. When the teacher spoke of the dog leaping along, they threw themselves on the floor to leap to; and when she uttered "bow-wow," they chimed in simultaneously with their own little "bow-wows." She held them, in fact, entranced by the interest of the narrative. In the case I have just described, the teacher from the first only held the class by a thread, which soon snapped, and then all was confusion. Each wandered on his own way, and all the wrong way. While observing what took place, I could not help expressing in my mind the principle, that it is the prime business of a teacher, especially of little children, to create an interest in the lesson. Unless teachers do that, they work to no purpose. Whatever may be the matter in hand, whatever the method employed, the interest of the children in it is the essential condition of success. This interest fixes and concentrates their attention, calls out their active powers, and ensures their co-operation with the work of the teacher, and therefore educates them. The method employed is of comparatively little importance. That is a good method, *ex vî termini*, which secures this co-operation. It is good because it educates—that is, stimulates and develops power. When this profitless lesson was over, the children began building, weaving slips of paper, &c.; and now, when they had something to do themselves, all was changed. They were as earnestly absorbed as they had before been indifferent, and now looked perfectly happy in their work.

In another Kindergarten which I visited immediately after, I found in a large and handsome room thirty children, who formed one division of the whole number, making in all seventy-four. These were marching and singing very merrily. This exercise was succeeded by "network drawing" (*Netzzeichnen*). Each child had a slate marked with squares, corresponding to those on a large black board which stood in view. The tables were also marked all over with squares. The teacher, calling attention to the black board, made a figure, or part of one, and she required the children to make the same on their slates, while she uttered continually (fifty times at least) "one—two," "one—two," &c., so that all the children simultaneously made the same strokes. The rigid mechanism (which also accompanies the teaching of writing, and often of reading, in all the common schools) may have advantages which I failed, on the whole, to appreciate. To me it seemed to have, at least, some disadvantages. It forced the slower children along at too rapid a pace, and gave them little or no time to correct their errors themselves. In fact, the principle of calling on the children to gain conscious profit for the self-correcting of their blunders and mistakes, is scarcely recognised in any of the teaching that I saw in the Kindergarten. In this instance, especially, there was far too much "telling" and ordering to learn, and consequently not the demand there might have been on the intelligence of the children. Still the general result was good. They were acquiring aptness of head and eye, and accustoming the mind to symmetrical form. The figures which ultimately came out were pretty. This is a specimen—





Much importance, not without reason, is attached to this kind of drawing, called technically "Netzzeichnen." It promotes accuracy of observation, and, by securing perfect symmetry, leads to the cultivation of taste, admits of great variety, and undoubtedly excites much interest. It is, moreover, the generally recognised method of instruction (not in the Kindergarten only) in the art of drawing. It is employed in the Gewerbeschule of Hamburg, and I saw it in use in most of the elementary schools that I visited. It is suited to the powers of the children, and supersedes unmeaning exercises in making isolated straight strokes. It also prepares for writing, which, according to both Pestalozzi's and Fröbel's notions, should follow, not precede, drawing.

I attended on one occasion, by invitation of the teacher (Miss Kohland), a class in a Volksschule—a school of the same class as our primary schools—to be present at a lesson on a picture, which was the nearest approach that I saw anywhere to a lesson on objects. It was called a lesson in *Anschauung* (observation), a name which it would have better deserved had the objects been real. It was a large coloured picture of a village, with a farmhouse, a church, trees, cows, a pond, &c. On these the teacher asked a number of questions as to their relation to each other, their nature, uses, &c., all of which were remarkably well answered by the children (about sixty in number, ages eight to ten), who were evidently much interested in the lesson. Here I for the first time became acquainted with a custom, of which I frequently afterwards had specimens. As soon as an answer was given which had a special significance, and which involved a distinct proposition, the teacher said, "Repeat that all together," whereupon all the sixty, with one monotonous voice, and that a very loud one, which at first almost startled me, gave it out simultaneously. The teacher had asked, "What is a house?" One of the children answered, "A house is a building." On requiring this to be repeated, they all roared out, "A—hōūse—īs—ā—būīldīng." On the whole, this lesson was a very good and useful one. I witnessed no lessons on pictures in the Kindergartens, but I see no reason against, and many for, their being introduced there. They are quite suited, or may be suited, to the powers of the children, and would tend to enlarge the range of their ideas, which are, as I have already said, rather too much restricted within the bounds of the "gifts."

I became aware at Berlin of the existence of some disunion among the unions for promoting the Kindergarten system. The Berlin unionists, it appears, do not see eye to eye with those of Dresden, and both, unless I mistake, have some differences with those of Weimar and Gotha. I do not quite understand the quarrel, and will not therefore attempt to explain it; but as it appears to lead to personal remarks, sometimes rather bitterly expressed, on each other, among the leaders of the parties, I learned the fact with much regret. German teachers, unless I do them an injustice from my ignorance, are rather more prone even than those of England to pick holes in each other's coats. Some of the holes seemed to me to be very large, and considerably changed the appearance of certain individuals whom I had from afar ideally invested with sound and even splendid dresses. I still prefer, on the whole, to keep my ideal in its integrity, and to believe better things of some of these good men than they apparently believe of each other.

DRESDEN.

On the 4th of September I left Berlin for Dresden, and the next day called on Dr. Marquart, one of the directors of the "General Education Union" (*Der Allgemeine Erziehungsverein*), who received me very pleasantly, and gave me several addresses. He lives in a house in which there is a private school for young ladies which he formerly directed, and which is now under the conduct and proprietorship of Dr. Jänicher. Dr. Marquart introduced me, at my request, to this gentleman, who kindly appointed one of his teachers to take me into the class-rooms. I was much pleased with all that I saw in the school; and as there is a Kindergarten connected with it, from which children are regularly drafted into the lower classes, and as I was informed that Fröbel's principles were adopted throughout, I was the more interested in my inspection of it. I had not time to do more than visit the Kindergarten and the lowest class, but I may add, that from the prospectus I learned that the curriculum embraces Religion, German, French, English, History, Geography, Arithmetic, Natural Science (*Naturwissenschaft*), Calligraphy, Drawing, Singing, Gymnastics, and Needlework. Pianoforte-playing is an extra subject. The institute takes day scholars, half boarders, and boarders. The fee for instruction only varies from 4 thalers to 2½, according to the class, monthly; and for boarders, 300 thalers a year in addition. The Kindergarten pupils pay 20 thalers per annum.

I first went to the Kindergarten, and found twenty-five nice little children (boys as well as girls) under the care of a pleasant-looking mistress, engaged in folding paper (*Falten*). They all looked busy and happy. I next entered the room for the lowest class of the school, and found the head-master himself teaching

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[1] It may interest some English mistresses of boarding-schools to know the outfit that each young lady is required to bring with her on entering this establishment. "One complete bed (without bedstead), with summer coverlet, and 2 dust-covers, 1 table-cloth, half-dozen of napkins, 2 silver spoons, with knife and fork, 1 cup, 1 glass, 6 night-caps, 6 night jackets, 2 day and 3 night shifts, 12 pairs of stockings, 24 pocket-handkerchiefs, 1 waterproof cloak, 4 white, 2 coloured, and 2 warm dresses, 6 pairs of drawers, 1 umbrella, 1 work-box, 1 set of toilet basin, ewer, and jug, 1 chest of drawers."

the children to read. This was an interesting fact; and I could not but compare it with another fact, namely, that amongst us it is too generally considered that anybody is fit to give children their earliest instruction, whereas the initiative into any study, being in many respects the most important part of it, especially requires artistic teaching.

The method was this: The teacher wrote a letter, or a combination of letters, on the black board, uttering very clearly, at the same time, the sound of which it was the symbol, and then requested the children to reproduce the signs on their slates, and to utter them at the same time, the utmost attention being paid to distinctness of articulation.[1] The children were of the ages of six to eight, and the immediate subject was evidently new to them. When I entered, *i-e* appeared on the board—"*i-e* is *i*," said the teacher; "*i-e=i*" responded all the children with one voice. He then went on—"*i-e-h* is *i*." This was followed by "*i-e-r* is *i-i-r*" (the *r* strongly vibrated); "*i-e-s* is *i-s*" (the *s* brought out very sharply). All this was reproduced by the children, who looked with all their eyes, and delivered the sounds with all their voices. They were most earnest, attentive, and orderly. The children then turned to the book which lay before them, where they found whole words containing the elements in which they had been exercised. Sixty of these they went through, the teacher asking the meaning of the words, and then, when one answered, requiring the whole to repeat simultaneously in a loud voice, "What is meant by *Dieb?*"—Answer, "*Ein Dieb ist ein Rauber.*" "Repeat *Eīn-Dīeb-īst-ēīn-Rāūbēr.*"

This practical combination of writing, reading, and requiring the meaning of the words, is general in the elementary classes; and though the meanings given, as appears from the above specimen, were not very definite or deep, they served the purpose; and it was assumed (possibly without sufficient warrant) that, by the simultaneous repetition, the knowledge of one or more became the property of the whole. I scarely ever heard the teacher give the meaning himself—he generally got it from some member of the class. The reading in the elementary schools is generally remarkably good. It is rare to meet with the stammering and stumbling too frequently heard in our schools. The children know what they are about, and proceed with confidence. In the year 1873, I heard, in the village school of Schwalbach, small children, ten or eleven years of age, reading complete narratives, containing plenty of the long-tailed words with which German abounds, in a style which surprised me;—just, in fact, as an educated Englishman would read an article from the *Times*, explaining the important words and completely expressing the sense.[1]

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[1] This method of connecting reading with writing, called "*die Schreiblesemethode*," is very commonly, though not universally, employed in German schools. It is sometimes called Graser's, from the name of an eminent teacher, who gave it a systematic form. It had, however, been suggested (as I learn from Strach's *Geschichte des Deutschen Schulwesens*) by De Launay, a French teacher of the eighteenth century. The method, which appears to be very successful in practice, has the special recommendation, that it requires the learner to take an active part in the process. He co-operates throughout with the teacher, and in fact does the work himself.

I was amused in Dr Jänicher's class with a little morsel of a child, who, I was told, was English. I asked her, "Can you speak English?" "Yes, I can, and I'm learning to speak German, *I believe.*" She looked very bright and intelligent.

In another class, where writing was going on, I saw some beautiful "English writing" on the black board, which the children were copying.

In another class—rather higher up in the school—the children were busy at Netzzeichnen, and produced some very pretty specimens; and, generally, I observed that the Kindergarten "works" (not the games), with cubes, &c., found their way, or rather were maintained, in several other classes.

On the whole, I was satisfied that a very good style of teaching prevailed in this school, and I could not but attribute this in a great measure to the principles on which the practice was avowedly founded.

I had an opportunity one morning of conversing with Dr. Paul Hohlfeld (one of the most intelligent men I met with in Germany, and himself a teacher in a great Volksschule in Dresden) on the objection to the Kindergarten system that I had heard in Berlin. He allowed that there was much mechanical and unintelligible teaching in some Kindergartens, in which the teachers did not well understand what they were about, and therefore failed to elicit the best results of the system; but he assured me, from his experience in the Volksschule, that the children who had been in the Kindergarten were generally superior to others, showed more interest, and "stepped quicker up the classes." Dr. Marquart, also speaking from experience, had made the same remark, adding that some children, who had been pupils in his own Kindergarten, created, to use his own expression, "quite a furore" in the Gymnasium.

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[1] Dr. Morell tells us in his Report in the last Blue Book that "he could count up on his fingers the elementary schools in which this kind of reading is heard in England."

I visited an institution for training Kindergarten governesses, where I found a number of young girls under the direction of Madame Keller, the principal, engaged in passing slips of white paper on blue cardboard (*Aufkleben*), and producing various geometrical forms, and others producing similar forms by laying down little tablets on the desk before them (*Legetäfelchen*). I had occasion here to remark, as I had done at Hamburg, how very small an amount of native intelligence the students were credited with. "Look here; don't you see that that is quite wrong?" "That ought to have been done so," &c., when the slightest reference to the fault would have called forth the reflection necessary for the correction of the pupil himself. I need not repeat the remark I have already made on this subject. The teacher was no doubt able and intelligent—as she certainly was amiable and kind—but I am persuaded she might make more of her materials than I saw made.

I wished to visit the Volks Kindergarten attached to this institution, but it was "free" time for the children, who were all in the playground, and I could not wait. I observed, however, that they were happily engaged in playing with some large heaps of dry sand, just as children play on the sea-side, scooping it out, making mounds with trenches round them, &c. This seemed to me a good hint for other Kindergartens. These sand-heaps afforded an immense amount of innocent amusement, not altogether unaccompanied with instruction.

I left this pleasant scene in order to avail myself of an introduction to Dr. Kockel, the accomplished director of the *Königliches Schullehrer Seminar* (Normal School for Elementary Teachers), with attached practising schools. I was most pleasantly received by him, and put in the way of visiting some of the lower classes of the school under the courteous guidance of Mr. Thieme, one of the head teachers of the Seminar, with whose marked intelligence and artistic skill I was strongly impressed. I was the more interested in visiting these elementary classes, because Dr. Kockel is himself a strenuous advocate of Fröbel's principles, and has impregnated the practising school with them. I do not know whether there is a class of Kindergarten children in this institution, but the Fröbellian exercises (gymnastics, weaving, paper-folding, tablet-laying, natural drawing, as well as the cubes, spheres, &c., of the "gifts") certainly form a regular part of the method pursued in the lower classes, with a view, as stated in the prospectus, of "cultivating the children's active powers, and laying a sound foundation for drawing, geometrical instruction, and the observation of nature."[1] I was introduced by Mr. Thieme to the 12th class, were I found 33 children, boys and girls, of from six to eight years of age; apparently, judging by their dress, and in many cases by their bare feet, of the poorest class. A young teacher was just about to give a lesson on geography, and I found it was to begin with the house itself in which the children were assembled. As it was a very interesting lesson (and moreover typical), and as I stayed the whole hour while it was given, I shall describe it in detail.

Besides the ordinary black board, there was another painted in squares, on which, or in connection with which, the lesson was to be given. Each child had a slate correspondingly ruled in squares. The teacher began by asking questions about the bearings of the house—"Which is the north, south?" &c. These questions were promptly answered, and N. S. W. E. marked on the board. Then "How is this house situated?" It came out that it faced the north, and therefore the sides were known. Then was shouted out simultaneously in a very high key, "Thē-frōnt-ōf-thē-hōuse-lōōks-tōwārds-thē-nōrth." Then "What is the house built of?" Answer—"Thē-hōuse-is-built-ōf-stōne." Then "What was round the house?" Answer—"A garden on three sides"—shouted out in chorus, "Thē-sē-mi-nā-ry-gār-dēn-hās-thrēē-sides." I have not given all the questions and answers.

The teacher then began to draw, strictly preserving the proportions pointed out by the squares, the shape of the building, asking questions as he made every line, and directing the children to draw the corresponding figures on their slates. The questions were such as these—"What have you done now?" "Why is that line so long and not longer?" a reason being required for every operation. Then the out-houses were visited, questions being asked what they were for, and how large in proportion to the main building, &c. From time to time, at a signal given, the children laid down their pencils and shouted out their answers simultaneously, as before described.

The figure on the board and on the slate was, at the present stage of the lesson, something like this—

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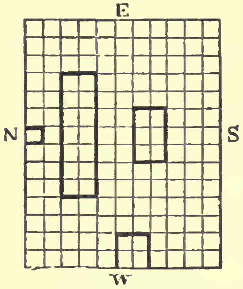
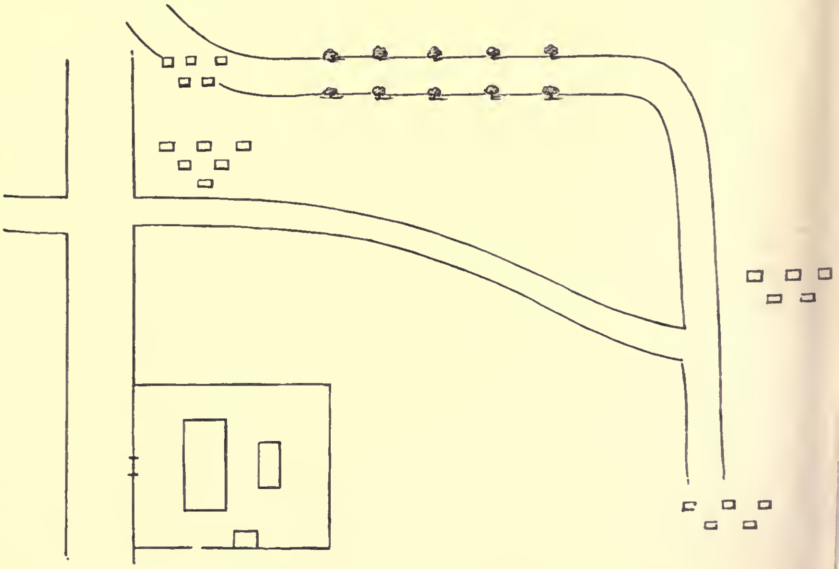
[1] It is to be noted that in this institution, which is a Government normal school, the Kindergarten certainly forms a part of the system.



The position of the house and its surroundings being thus determined, and many questions being asked upon it, the teacher took his chalk in hand and proceeded to draw the street on which it stands, asking many questions, such as—"In what direction does the street go?" "The street" (not merely "it") "goes E. and W." "To what place does it go?" "The street goes east to Löbtau." "What places or buildings does it pass near on the way to Löbtau?" Then naming other places in the neighbourhood—"How must we to reach———?" "We must still go E. to reach———," or sometimes "N.E. or S.W.," &c. Löbtau and some other places were then inserted by the teacher on the board, and by the children on their slates. Then all left off, and a boy was called from the class to the board to examine (pointer in hand) the rest on what had been done, which he accomplished very skilfully, repeating his question over and over again. [One child who was rather inattentive—a marked exception—was punished by the teacher's taking his pencil from him.] Then other streets or roads were inserted with the same strict observance of the bearings, and the figures on the board finally presented itself thus—



I could not but consider this a very excellent lesson—excellent in every way. The children (with the exception already mentioned) were earnestly attentive throughout; their own co-operation all the time maintained the interest excited by the teacher, who, on his part, though young and a novice in teaching, steadily kept to his purpose. This first lesson was to be followed up by others, extending the area to the principal towns of Saxony, and then the map of Saxony was to be carefully studied and mastered. The teacher, of course, had no book to aid him. I never saw a teacher with a book in any German school, even when reading in class was going on. In this case the scholars were to read so as to inform the teacher of the matter of the lesson. If they could not do that, then the reading was bad, and had to be recommenced. Everywhere the teacher appeared to be master of his subject.

I next went with Mr. Thieme to a class of children of between six and eight years of age, in which he himself gave a lesson in writing. Three other teachers were present, who merely looked on and acted under direction. All the children but the very youngest, who wrote on ruled slates, had copy-books. This lesson was in many respects very remarkable. I had never seen anything like it before.[1] The part which particularly attracted my attention was the elaborate preliminary exercise—the pantomimic representation of all that was being done by the pupils.

The object was twofold—first, to prepare the fingers and the mind for their work; and, secondly, to make the pupils conscious of all the operations they were to perform in the practice of writing.

1. Exercises with the fingers. Mr. Thieme held up his hand with the fingers close together; he detached one, two, three from the rest; then renewing the operation, he added them singly or in groups to each other; he elevated them singly or in groups—the children throughout imitating his movements. Next the fingers were elevated separately and in groups, with the words "up—down—up—down," &c.

2. Wrist-movements of various kinds.

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[1] It appears, however, from Strach's interesting *Geschichte des Deutschen Schulwesens,* that this method is in substance Dafft's, who made it known twenty-five years ago. He prescribes preliminary exercises for rendering the fingers supple, exhibition of the proper way of holding the pen, and especially the writing by time (*Taktschreibung*), the teacher leading the operation by saying "one" at the up stroke and "two" at the down stroke, which words the learners are to repeat softly as they make each movement.

3. Movements required in writing; the hand (without pen) held in the required position; then both hands and the arms arranged with regard to each other; lastly, pantomimic movements on the board by way of illustration.

4. Movements, pen in hand, to show proficiency in holding it; first slow, then quicker and quicker, then a sliding movement of both hands to show that the letter was made.

These exercises altogether occupied nearly a quarter of an hour. The teacher then took up the chalk and wrote on the board (ruled for round hand) various strokes, the children making the same in their books. Then followed a line of *f*'s, each being joined to the preceding by a curved line thus—*f*‿*f*‿*f*‿*f*‿*f*; while each movement of the head was accompanied by the words "one—two—three," "one—two—three," so that the whole class (each child repeating softly the same words) made the same stroke at the same time. Then the pace was quickened, and they proceeded at a rapid rate. In fact, the pace was far too rapid, and prevented the children from observing the model, which I observed they did not look at a second time. The strokes were all made with very sharp-pointed pens, so that the distinction between thick and thin strokes seemed scarcely even to be aimed at. With some modification, easily made, this method appeared to me very excellent. The preliminary exercises especially, though too much prolonged, would certainly make the hand flexible, and give every child a very distinct notion of what he had to do.

On the whole, I was much interested by what I saw in this practising school. I only regretted that I had no time to give to a visit to the classes of the Seminar itself—an institution, judging from the programme of studies, and from what I saw of the teachers and the teaching, in which such work is well done.

I felt on leaving Dresden that I had done scant justice to the earnest educational activity which prevails there. My plan, however, did not allow of further delay. I proceeded, therefore, next to

WEIMAR,

which I reached on the 8th of September.

In Weimar I first visited the Bürgerschule (Director Pfeiffer), a large institution for boys and girls, each in a separate part of the school-house. My special purpose was to attend the lessons of the lowest class, consisting, as I found, of about eighty little girls of six and seven years of age,—far too great a number to be under the direction of one teacher, though in this case the teacher was a very intelligent young man. The children were, however, ably managed, and were very attentive and orderly; yet, as was natural under the circumstances, the greater part of the work was done by a comparatively small number of the children.

The business of the morning began at eight o'clock with a short prayer, all standing. The lesson was on the history of Moses, a portion of which the teacher related in a simple manner. He then asked a number of questions, which the children answered readily. They appeared to be much interested. The good answers were repeated simultaneously by the whole class, some of the little boys nodding their heads and swaying their bodies while they answered, as if naturally moved by the interest of the story. This little trait struck me forcibly. Now and then they were required to repeat after the teacher some little rhymes. At another time the teacher said, "When we feel ourselves fresh and well in the morning, what ought we do?" "We ought to pray, and give thanks to the dear God." On the whole, this was an interesting little lesson.

The teacher next began a lesson in reading, having by his side a black board with ledges, on which he placed movable blocks, each containing a letter. These were sounded at first separately, then in various combinations, by the "laut" or "sound" method,[1] the children framing the mouth for each sound, consonants and vowels, and then, in the case of the hard consonants, exploding the sound. It was the sound of the letter, not its name, that was uttered—"P-a, pa; p-a-pa; papa;" *w-ä-n-d-e, wände.* "*Wie viele Wände hat die Stube?*" (How many walls has the room?) Answer, "*Dīē Stu-bē hāt vier Wändē.*" (The room has four walls); and so on.

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[1] This "laut" method was first developed and expounded by Stephen—seventy years ago—with some modifications suggested by Krugg, and prescribed for general adoption by the Prussian Minister of Education in 1841. I found it employed in almost all the schools that I visited, though with various degrees of strictness. It is a perfectly natural method, and ought to be introduced along with the "Schreiblese Methode" into our elementary schools. Sir James Kay Shuttleworth, when in Downing Street forty years ago, made an attempt, which proved fruitless, to introduce it. The failure was greatly due to the singularly crabbed and uninteresting book (*The Phonic Method*), compiled under Dr. Kay's direction, which was intended to initiate teachers into the method. All praise is, however, to be given to Sir James for the earnest and enlightened spirit in which he then worked up the improvement of the methods of elementary teaching. It is not his fault that the Revised Code has so long pursued its disastrous course, ignoring or repudiating every principle of true education. Had his wishes been realized, we should have had a very different kind of teaching in our schools from that which has for years prevailed, and still prevails.

Then followed arithmetic. The teacher produced a tray of cubes, and taking up one said, "*Was ist das?*" (What is that?) "*Das ist ein Würfel.*" (That is a cube.) "Count the sides—the edges—the angles. How many are there?" The children answered promptly and well. Three or four more cubes were produced, and placed on or alongside each other. "How many are there now? I take away one—two—three; how many are left?" "How many when I add these" (pointing at four) "to this one?" Answer—"Four cubes and one cube *is five* cubes" (strong emphasis on *five*). Then a number of such questions as these were asked: "You buy twopence worth of apples and four pennyworth of potatoes—how much do you spend?" All these questions, certainly simple enough, were answered perfectly; not only correctly, but with a certain air of mastery, denoting complete comprehension. Then came writing. The copy "*Mutter*" was written on the board, and read aloud before it was written. The children wrote on slates, one side of which was ruled for large hand, the other was ruled in squares for *Netzzeichnen.* Some of the writing was remarkably good for such little children; and indeed, on the whole, considering the number in the large class, there was a good deal of intellectual life. Many of these children came, no doubt, out of the two large Kindergartens of Weimar; and whether they did or not, the spirit of the method pursued was nearly as possible in conformity with Fröbel's principles.

I visited in the same institution the lowest class of boys (78—of six and seven years of age). Here there was more amusement, less teaching. All sorts of exercises, as clapping hands together the one on the other, laying the head first on one hand, then on the other, then on both, going to sleep with the right side of the head laid flat on the cloth, then the same with the other side, &c. They then sang to the teacher's violin accompaniment a song, the refrain of which was "Cuck-oo, cuck-oo." The singing was loud, not sweet. I did not stay for the next lesson.

I have here and in other parts of this book minutely described what I saw done in the *Volksschulen,* because these exactly correspond to our primary schools. The materials to work upon were precisely the same in all respects, and the difficulties to be overcome of precisely the same nature; but here I witnessed nothing of the drawling, droning manner of learning which too frequently characterizes our style—the manner of dreamers who are suddenly waked up for the moment, and then relapse into slumber until they are roused again. The children here, on the contrary, were all awake and eagerly desirous to prove that they were: nor did I see a single child in any of these schools that could be denounced as idle, nor one instance in which they seemed to be covertly attempting, by secret tricks between neighbours, to create an interest for themselves outside of the lesson. I was struck too, as I have said before, with a certain air of confidence and mastery with which they performed their parts when called upon. They scarcely ever hesitated for a moment in answering the questions put to them, but proceeded at once to the business in hand as if conscious that they were prepared for it. In all these I perceived easily the soundness of the previous teaching, which was producing its effects on the current lesson. They did well because they had been used to do well, and had been taught how to learn.

I next proceeded to visit Miss Meissner's private Kindergarten, one of the two established in Weimar. The other is Miss Minna Schellhorn's, of which I shall have presently to speak. The children (forty in number, ages from three to six) were engaged, when I entered, in movement-games (*Bewegungspielen*). There was one of these, which I had never seen before, intended to test and improve the sense of hearing. A child in the middle of the circle was blindfolded and then led up to one of the other children, who was to sing "la-la-la" in its ordinary voice, and the point was for the former to detect by ear and touch also who the singer was. If successful, the detected child was to take the place of the other, and so on. This game might be varied, but was not in the present instance, by requesting the blindfolded child to name, from touch, different articles in the room, or tell what part of the room he is in.[1]

The children, after the games were over, sat down to work at folding paper (*Falten*) and pricking out forms on paper ruled in squares (*Ausstechen*), the outlines of the figures of horses, birds, houses, &c., having been sketched beforehand by the teacher in pencil. The little things seemed much interested in this employment, and gave up their small minds earnestly to it. They were doing something themselves. Every now and then they held up their performance to the light, and were pleased to see the figures growing under their hands. Miss Meissner, active, brisk, and intelligent, was as a centre of light and movement to the whole body, which she inspired with her presence.

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[1] A variety of such experiments in the use of the senses may be found described in a very valuable little book which I strongly recommend to parents and teachers—*Exercises for the Improvement of the Senses for Young Children* (Bell & Daldy).

My next visit was to Miss Minna Schellhorn's large Kindergarten of about 100 children. Her rooms are very spacious and airy, and there is a garden (with children's flower-beds), and a large playground, with an ample shed, in which much of the mingled playwork goes on when the weather is fine. I found one division of the children engaged in paper-modelling (*Falten*), another in arranging slips of paper in geometrical forms (*Verschnüren*), and a third in laying little wooden tablets in various positions with regard to each other, constituting forms of "life," "knowledge," and "beauty" (*Legetäfelchen*). As the children here were remarkably apt and intelligent, I stood by watching them at their "work." To the eldest, engaged in "Falten," pieces of buff-coloured paper (four inches square, exactly measured) were given out. They were first asked to explain the form of the paper. "What is the form?"—"A square." "How many sides?"—"Four." "What about the sides?"—"All are equal." "What about their position?"—"Two are perpendicular, two horizontal." Then followed questions on the angles, their number, kind, &c., all of which were promptly and correctly answered by all the children. They were then directed to fold the paper so as to make two of the parallel sides meet. "What figure have we now?"—"An oblong." "Restore the original figure, and compare this with it." "Each of the oblongs is half as large as the square." "How do you know that?" "Compare the length with the breadth of the oblong, what do you notice?"—"The length is twice the breadth." "Show that measure." Many more questions of this kind were asked, and thoroughly well answered. Then the square was folded diagonally and a new series of observations made on the triangle produced. "How many angles?" "What kind of angles?" "One right, angle and two acute angles." "What is an acute angle?" "What is an obtuse angle?" "Have we an obtuse angle here?" &c., &c. The answers were not always technically expressed, though they generally were, but they invariably showed correct observation (*Anschauung*) of the facts with which their minds were brought into direct contact. I was delighted with the intelligent, artistic guidance of the teacher (Miss Schellhorn), and with the almost equal intelligence with which the children followed her lead. These preliminaries over, the teacher said, "Now fold some forms with your paper," and left them to take another class. I stood at the table myself, watching the deft little figures rapidly employed in "conforming the outward show of things to the desires of their minds," and producing, each according to his or her own pleasure, boxes, boats, seats, crosses, salt-cellars, and other very complicated shapes, of which I did not get the names. The children begged to be allowed to give me the results of their handiwork, and I accordingly, after expressing my genuine satisfaction, brought them away with me. If any one chooses to contend that these children were not usefully (I know that they were happily) employed in their "Falten," I can only reply by asking for a definition of useful employment. Observation, expression, reflection, were all exercised; and if nothing else was done, they were gaining great aptness in the use of their fingers.

I next directed my attention to the work of the children (the youngest of all) who were employed with the tablets. It was delightful to see the thorough absorption in the work of forming seats, crosses, tables, houses, &c., on the flat desk, and the glee with which they contemplated their little performance—talking, laughing, and criticising each other's work. One child, after looking for a moment at what he had produced, shouted with delight; another, who had been earnestly employed in making a house which had tumbled down several times, having at last succeeded, clapped her tiny hands over the finished work, and nudged her neighbour to invite her to witness and share in her joy. If there are any of my readers who amuse themselves with the idea of a grave professor of advanced years sympathising with these innocent sports and occupations of children, and calling that education, I cannot help it. After years of both study and practice of education, I cannot frame a definition of it, which, as including development and training, does not strictly apply to the exercises in which these little children were engaged. Their active powers, bodily and mental, were elicited by an all-sided culture, and, what is supremely important, with the continual accompaniment of satisfaction and pleasure. No harsh compulsion, no tears, no idleness did I observe in this or any of the Kindergartens of Germany. All were busy, all earnest, all interested, and this because they were at work (for the games were work) on their own account. The labour itself was a pleasure (*Labor ipse voluptas*), because it was their own labour.

The morning's business was now coming to a close, and it was finished by an exercise which produced immense excitement. Some twenty-five of the children, seated on both sides of a long table, began, in imitation of the teacher, to beat time on the table, at first very slowly, then quicker and quicker—at first with one finger, then with two, three, &c., then with the whole flat hand, and lastly with the doubled fists. This was apparently very satisfactory, but the next was the *chef-d'œuvre.* It was to imitate a storm. First, the finger-tips tapped to measure on the table represented the dripping rain, then louder tapping showed that the rain was growing to a pelting shower. It went on louder still, while now and then smart simultaneous blows with the flat hand indicated the lightning-flashes; these at last were succeeded by fast, loud, redoubled blows with the closed fists of both hands, making a tremendous crash of thunder. This was the climax of the storm, and it created quite a furore among the children. They were, in fact, intensely delighted, and—shall I confess it?—so was I. I left Miss Schellhorn's admirable Kindergarten with feelings of great respect for her, and with increased confidence in the system which she so artistically administered.

GOTHA.

On the 10th of September I found myself in Gotha, my principal object in visiting which was to examine the great Kindergarten institution presided over by Professor Köhler. I may say at once that few things in the course of my life have ever interested me more than my visit to "Das Gothaische Lehrerinnen-Seminar und seine Zweiganstalten"—the Gotha Normal School for Governesses and its branch establishments. It will be seen from this that its main object is that of training female teachers. The Kindergarten itself is only one of its departments—a sort of practising ground for the Kindergarten governesses. The institution embraces, in fact, six departments—1st, the Kindergarten (for children from two and a half to six years of age, fee about £1 16*s.* per annum); 2nd, the Girls' Schools (age from six to fourteen, fee about £2 14*s.* per annum); 3rd, the Higher Girls' School (*Fortbildungschule*) (age from about fourteen upwards, fee about £4 10*s.* per annum); 4th, the Normal College for Kindergarten Governesses (girls above sixteen years of age, fee £9 per annum); 5th, the Normal College for teachers preparing for the Primary Schools (fee £9 per annum); 6th, the Boarding House (£45 per annum, including the school fee). All these departments are closely connected with each other, especially by the principle which reigns throughout and determines the character of the instruction. That principle is that of Fröbel, of which, both theoretically and practically, Professor Köhler is a distinguished expositor. He has written several separate works upon it, and his *Praxis des Kindergartens* (in two volumes, to be followed by a third) is one of the best guides to its practice. After receiving from my interview with Professor Köhler a very favourable impression of his benevolence and intelligence, I went first to the lowest class of the Girls' School, where I found twenty-two children (ages six and seven). The class consisted, I was told, properly of thirty children, but eight were absent from measles. They were marching very prettily to a measured rhythm of three beats, the last of which was strongly accented. Then they were supposed to come to a wood, where they all lay down to sleep, from which they were roused by a loud "cuckoo!" from the teacher. Then they all jumped up, shouting "cuckoo!" dancing, and clapping hands, and went to sleep again. It was, in fact, a

Kindergarten exercise introduced into this elementary class of the Girls' School.

I next went to the Kindergarten itself, where I found the same teacher who had just before been in the Girls' School. The children, about thirty or forty in number, were variously employed—one division, the youngest, were engaged with little sticks (*stäbchen*) making various forms of objects on the table. One of two and a half years old was very earnestly busy, but not very successful. She did not quite perfectly "conform the outward shape of things to the desires of her mind." Now and then she looked round to see what her neighbours were doing, and then, appearing to have gained a hint, went on again, nodding her head with approval when she had made a point. There are many exercises with *stäbchen;* amongst others, exercises in counting.

At another table the children had needles, with coarse thread, which they passed through holes already pricked as a pattern for them in cards, thus producing a sort of embroidery (*Ausnähen*). This, though, I believe, very common, I had not seen before. The effect was pretty, and the children seemed much pleased as the picture grew under their hands.

I thence passed into the sixth class (lowest but one of the Girls' School), about twenty-five in number, ages seven and eight, where a very intelligent and painstaking teacher (Miss Ulrici) was cleverly developing the principles of *Umlaut;* that is, the modification of the vowels in nouns. I was surprised to hear how fully these little ones entered into the lesson. They answered the questions put to them exceedingly well.

In the next class that I entered the lesson was in English, about thirty girls, of whom fourteen (thirteen or fourteen years of age) were here learning English. The teacher (Miss Rothstein), who is a pleasing person of gentle and refined manners, was conducting the lesson. Each girl had before her "*Earth's Many Voices*" (published by the Christian Knowledge Society), a nice little book, well adapted to the purpose. The lesson was given in German, not English, and all were most attentive to it. The pronunciation was far from good—too soft and mincing—but they seemed to know very well what they were about, and translated the text into German quite fluently.

In the afternoon of this day I was present at what was called a trial lesson (*Probe Aufgabe*) in the Kindergarten governess department. Twenty-four children came merely in to be experimented on by six teachers in the presence of all the other teachers (who took notes), and by Professor Köhler himself. Dr. Haas, also of Wiesbaden (whose Kindergarten I had visited the previous summer), and another gentleman, were present. Five out of the six teachers successively told stories to the children. The sixth superintended a lesson in gymnastics, in which there was much jumping over spaces marked out by long staves laid on the floor, &c. The success in story-telling was various, but all the teachers spoke with great fluency and distinctness. I have frequently had occasion to notice the firm and unhesitating manner in which German teachers speak in their classes. There was never any stammering, hesitating, bungling, or recalling words, as is common enough when English teachers deliver themselves in a set narrative or speech. All seemed to know exactly what they had to say, and how to say it; yet, as I have said, the success of these teachers in their trial lesson, as tested by the effect on the children, was various. Some laid hold of the children's eyes, ears, and minds with remarkable power, and kept their attention rivetted on the story. In one instance the eyes began to wander, and symptoms of weariness were obvious, and a little member of the class went fairly to sleep, On the whole, the interest displayed by the children under these repeated doses of words was far less vivid than that manifested when engaged in the "occupations" in which they were themselves the agents. It is what children do for themselves and by themselves that most interests and most effectively educates them. The present instance, however, does not perhaps fairly represent the case. It could scarcely be expected that the children should maintain their attention at full pitch under the infliction of five successive doses of words.

At the close of the sixth lesson, which came in very opportunely, the session was broken up. In about ten minutes after, however, it was resumed, without the children, in another room; the object now being to criticise the lessons just given. One teacher after another rose at the bidding of the Professor, and gave what appeared to be very frank and outspoken opinions on the performances of their colleagues. I could not, in consequence of my deficiency in German, understand all the points brought forward, and shall therefore venture on no criticism of the critics themselves. At the end of a long discussion Professor Köhler briefly summed up the arguments.

The next morning, at seven o'clock, I again presented myself in the same department of the institution to hear two lectures of an hour each, to be successively given by Professor Köhler.

The first lecture was on *Methodik*, or Method. It was entirely *vivâ voce.* No one of the fifteen young governesses present took a single note, but their fixed attention was very obvious. The lecture was very simple in substance (almost, indeed, to excess), and the tone and manner those of a master of the art of lecturing. The motive or subject was the laying of the grand work of clear representations (*Vorstellungen*) in the mind, and the first part consisted of an analysis of numbers, the second of that of forms. It was shown how the conception of number arises from the observation of a plurality of concrete things. A great number of instances of every kind were adduced, and the proposition laid down that "what is true everywhere, at all times and in respect to everything, must be general and abstract," and hence the use of abstract numbers. Questions were frequently put to the class, and bundles of little sticks used by the students by way of illustration. Then the conception of form was analyzed, the proportions of the circle being minutely investigated.

The second lecture, "On the Theory of the Kindergarten," to a new set of students, twenty-five in number, and younger than the others, followed the first after an interval of about five minutes. It was, of course, one of a series, and the subject was the exercises of which the cube is capable. Every student was required to do herself with the cube what she was as a teacher to require from the children. The rigid enforcement of this demand on the attention became at last, I could perceive, rather wearisome. The Professor, however, would take nothing for granted, so the cube was made to show off every power that could possibly be expected from a well-behaved solid. Anything more exhaustive —not to say exhausting—in the way of a lesson (which it was rather than a lecture), I was never present at. The proof of the cube's capabilities was complete and overwhelming. I do not say there was too much of demonstration—for one never knows what too much is—but it did occur to me (as I have remarked before) that the teachers of Kindergarten governesses in Germany certainly give their pupils extremely little credit for native intelligence; by which I mean here the power of thinking for themselves, of dispensing with continual guidance and help from without. I make this remark with some diffidence, however, in the case of so eminent a teacher as Professor Köhler, especially as I had witnessed in the previous lecture to the elder students a greater, though still very slight, demand made on their thinking powers. The question has been touched upon in a previous page, but as it is one of great importance, and forms almost the only ground of difference between myself and most of the heads of Kindergarten Colleges I met with in Germany, and applies, *à fortiori*, to our own Normal Colleges, I may venture to re-discuss it here. It is usually thought that the testing a teacher's powers in his competency to "communicate," as it is called, the knowledge that he possesses to his pupils. If we find him earnest in his work, intent in dealing out facts which he knows to his class, and giving them clear explanations of what he conceives to be difficult, we generally pronounce him to be an excellent teacher. The test is, however, fallacious; for, after all, it is more than possible that he has communicated (that is, that the hearers have received and incorporated) little or nothing of his prelection, and that their minds were simply passive under the torrent of words with which he has drowned them. He has taught, certainly, but they after all have not learnt; and it may happen, indeed often does happen, that just in proportion to the care with which he has mixed their food for them, is its unsuitableness for their nutrition. He has, in fact, done for them what, if they were to gain strength and power from the lesson, they ought to have done for themselves. He has been hard at work, and they have done little beyond looking on. Assuming moderate attention, or at least the appearance of it, on their part, they may have gained now and then, in a fragmentary way, something which happened to be *en rapport* with what was already in their minds; but the doubts and difficulties which at the moment suggested themselves, and the solution of which by their own reflection would have been most valuable to them, have been repressed by the necessity imposed on them of trying to keep up with the long strides of the teacher advancing in his way. They quicken their steps, but find a mist in the path, which thickens as they proceed. They hear but cannot see their leader, and at last give up the attempt to overtake him. The rest of the lesson is therefore utterly useless to them, and they cease to give any heed to it.

Now, suppose on the other hand that the teacher, instead of assuming that his knowledge of the subject in hand, and his power of telling and explaining, constituted the proper qualifications for his office, had assumed, on the contrary, that his business was, before everything else, to elicit the pupils' powers, not to display his own—to make them think, not to think for them—to make them do the talking and explaining, not to do it for them—to receive, not to give—his plan of action would have been altogether different, and the results would have been different.

He would have thought to himself—I know well myself the subject I have to teach these students, and my knowledge will enable me to direct their attention to its various points of interest, but it will be of no service to them simply to tell them what I know. My knowledge, as far as it is the product of my own research and thought, cannot possibly be communicated to them. In order to possess it, they must themselves go through the processes by which I gained it. My business, therefore, is not even to attempt to impose it didactically upon them, but to put them in the way of obtaining it themselves. The function of a teacher is to get his pupils to learn—to learn for themselves—by the exercise of their own powers. But what is "to learn?" To learn is to know, and in the true sense of the term we know, not what we have been told by others, but what we have observed and thought out for ourselves. Knowledge, which we can properly call our own, is the result of our own experience—not of the experience of others. What I have to do, then, is to make my pupils learn through their own personal experience. This is a reality—a matter of fact. The experience of others, the results of that experience, may in time supplement personal experience, but it cannot, in forming the mind, be allowed to supersede it, and is therefore to the elementary student an unreality. It is a fact which does not concern him. What does concern him—vitally and indispensably—is the exercise of his own powers, and by this exercise I mean not the mincing over again what I have minced for him, but the practical contact and contest of his own jaws with the food, and the conversion of it, by the forces of his own stomach, into "the blood which is the life." My object, then, is sufficiently defined. It is to utilize, by all the means within my compass, the powers that God has given to every human being, and to do nothing which shall tend to neutralize them. And I know, from my study of the nature of the mind, and from my observation of the mental activity of children in their self-teaching, through natural circumstances, and in Kindergarten and infant schools, that children have minds, and can be got to use them if the proper means are employed. My aim then shall be, whether I have children merely as to age, or children as to knowledge, to teach, not to tell and explain, what I know (since by so doing I should deaden, or at least neutralize, their powers), but to animate stimulate, quicken, and guide them, by requiring self-teaching, self-action, and self-education.[1]

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[1] It is much to be regretted that these principles have not yet found their way

Now, if these principles are grounded in nature and truth, I cannot but believe from what I have seen that both the teachers and the taught in Germany as well as in England have something still to learn.

I wish to add a few words on a point intimately connected with the foregoing discussion. I noticed in Germany what is too common in England—the extraordinary tendency of teachers to make their teaching, or rather the result of it, prematurely regular and systematic. Hence the almost fanatical attachment to rules and formulæ. The teacher thinks the pupil has done nothing unless it is reduced to rule and system. In other words, he is so intent upon the production of the flower that he neglects the culture of the growing plant, which after all should be his main concern. The premature introduction of the systematic and scientific often stunts or even stops the natural development of the mind. That distinguished teacher Diesterweg thus puts the case generally: "It is not what is complete and already made, but that which is individual, that which is, that concerns the learner. The true teacher does not show his pupil the ready-made building, the product of a thousand years' labour, but guides him in shaping the building stones, carries up the building with him, teaches him how to build." To this he adds: "The so-called Scientific Method is deductive, synthetic, progressive, logical, and often indeed in the most cases purely dogmatical. The elementary method (that suited to elementary teaching) is inductive, analytic, regressive, heuristic (from Εὑρίσκω, I find out). The former consists in proceeding from above to below, the latter in proceeding from below to above. In the former you begin with the top, and work your way downward to the foundation; in the latter you begin with the groundwork on which the house stands, and advance upward to the summit."[1] To the same purpose we find the greater teacher Wolf quoting from Tanaquil Faber, an excellent mathematician, a passage in which he comments on the

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into our own primary school instruction. Dr. Morell (Report for 1873–4) tells us that in reading, for instance, he could "count up on his fingers" the schools in which it was taught so as to bring out expression, &c.; by which he means, as appears from the general tone of his Report, schools in which the children are taught to think of the meaning of what they read, and, in fact, to use their active powers at all.

[1] Diesterweg's *Wegweiser* (new edition, 1873, p. 244), a most valuable work, worth all the books taken together that have ever been written in England on practical teaching.

error into which some teachers fall in making their elementary lessons severely scientific and systematic. The natural method dictates to the teacher the fixing of the learner's whole attention on the individual thing—on that which is, the fact—and leaving the co-ordination and classification of facts until these are represented in the mind by accurate ideas. If only a tithe of the labour expended by the teacher in teaching rules were expended in securing the learner's thorough acquisition and appreciation of facts, the results would in the majority of cases be far more satisfactory than they are. According to our notion, indeed, the framing of rules, formulæ, and general propositions is, under the teacher's guidance, to be the work of the learner in the presence of facts that he knows; and therefore in no case (in elementary instruction) is the experience of others (of which ready-made rules are the product) to be allowed to set aside the learner's own personal experience, which afterwards must form the foundation of his mental structure, and must be taken as the base of operations for the teacher.

The upshot of these remarks is obvious. It is that the true function of the teacher is to get his pupil to learn—*i.e.*, to know that they cannot know, in any accurate sense of the term, what they do not learn by personal experience; that is, by the working of their own minds; or, in other words, by self-instruction and self-education.[1] Whatever apparent success a teacher may gain through interference with this principle, operates *pro tanto* against the interests of the learner by diminishing his independent power. This consequence results whenever the teacher does for the learner what he can and ought to do for himself by observing, analyzing, investigating; in a word, thinking for him. The learner, even though a young child, can observe, compare, form and express judgments upon facts, and the teacher's proper function is to stimulate and guide him in the exercise of these powers, but never to supersede them. If, however, these principles are just, it is submitted that teachers, not only in England, but even in Germany, the land of pedagogy, very often neglect or abuse their proper function.

But I have kept the reader a long time waiting for the continuation of my narrative. I will now resume it.

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[1] Bishop Temple says—"All the best cultivation of a child's mind is obtained by the child's own exertions, and the master's success may be measured by the degree in which he can bring his scholar to make such exertion absolutely without aid." To the same effect Mr. Markby says—"To teach boys how to instruct themselves—that is, after all, the great end of school work."

I attended a lesson given in a third class of the Girls' School in botany (twelve girls present, of the ages nine or ten). The teacher, a young and interesting person, whom I had already heard in the lower classes of the same school, showed great power as an instructress. Her tact and skill, and (I should think) her knowledge, too, were remarkable for one so young. She had been, I understood, trained in the Seminar, though in that only.

As the lesson was on botany, I looked, but looked in vain, for plants. To my surprise there was not even a drawing visible. I must suppose that the actual contact with the material itself, or some good representation of it, had taken place in a previous lesson; at all events, there was nothing of the kind here. Still the lesson, as far as it went, was extremely interesting. After a few questions on the root, stem, leaves, &c., of a plant, the teacher called up one child after another to draw on the black board every variety of leaf. Without the slightest hesitation or bungling, they drew not only the outline of each leaf, but in some cases venation; then at least a dozen modifications of the edges; then pistils of various forms; and lastly the stem, furnished with leaves of different kinds. The teacher had but to demand, and the product forthwith appeared. Considering the age of the children, the skill even in drawing was very noticeable; there was not one really bad specimen, and I think every child took her share in the work. The teacher, of course, had no book, nor did she appear to need one. She scarcely, however, gave a word of explanation. There was no telling. The work was all done by the children themselves. I regretted that I had no further opportunity of witnessing the lessons of this masterly young teacher.

In the sixth class (the lowest but one of the Girls' School) I attended a lesson on "History." The children (twenty in number) were only seven or eight years old, and I wished much to hear how they would be taught history. The teacher (Miss Ulrici, whom I have mentioned before) solved the question very easily, by telling them the story of Ulysses, in which she joined on in some way that I did not quite understand the tale of Orpheus and Eurydice. It was chiefly the latter with which she dealt, and she told it with uninterrupted ease and fluency to a highly appreciative audience. At the close she asked many questions, which were answered in a way which showed that no parts of the story had escaped attention. I wished to hear what the teacher had to say about teaching little children history; so I asked her whether she called those stories "history?" Her answer (in which I fully agreed) was that stories of this kind—that is, which excite the imagination and yet have a sort of historical foundation, and bear upon historical names—are the only basis you can lay for history-teaching in the case of such young children. "Better," I inquired, "than even the history of the Fatherland?" "Yes," she replied, "the history of the Fatherland is too difficult." I found, in fact, that in this class there was no bothering of little children with dates, which to them could have no meaning, nor exposition of ready cut and dried judgments (conveyed often in single epithets) of persons about whom the children knew no facts which could warrant the judgment. I am quite persuaded that much of our teaching of history to young children is almost immoral, as involving the systematic implantation of prejudices which take deep root, and often produce very undesirable fruits. Dr. Arnold recommended that children should be taught history much as Miss Ulrici taught it, by means of striking stories, told as stories, with the addition of pictures, which would make the interest more varied.

I attended one lesson in the Higher School for Girls, given by Professor Köhler's son. It was on the German language, with illustrations from the writings of Schiller. Schiller's life was briefly sketched by the teacher, who soon began to question the students on the "Lay of the Bell," the subject of which was entered into, and especially the measures in which it was written. Some of the girls marked on the black board the typical trochaic and iambic feet, and a few of the variations from the type. Then questions were asked on the composition and on the nature of sentences. These were followed by the recitation of some short passages from the poem, which were given without much expression. This lesson seemed to me on the whole very good, but not masterly. The students were all exceedingly attentive.

In the programme of studies in this institution, I did not find hygiene mentioned. It would, however, I venture to think, be well to add it, if for no other purpose than that of calling attention to the laws of ventilation. Not here only, but very generally in the schoolrooms of Berlin, Dresden, and Weimar, I really suffered from the oppressiveness of the air. In no one of them did I observe any system of ventilation whatever. The usual plan seems to be this—first, to shut all the windows and doors quite fast, so as to keep out every breath of fresh air; to go on enduring the accumulated misery naturally arising from this arrangement until it is quite intolerable; then to open the windows for about three minutes, and when these have expired, to go on again as before. I was, and still am, at a loss to understand the remarkable objection to fresh air that Germans almost universally manifest, but I am sure it acts injuriously on the school children; and I could not help noticing how much fresher and healthier the children of the Kindergartens (in which the air-excluding tendency is rarely shown) generally looked than those of the schools. These remarks have, of course, no application to the case of the Girls' Gewerbeschule of Hamburg, where (as I have already remarked) the arrangements for ventilation are most elaborate and complete.

In spite, however, of this drawback, I was strongly impressed with the excellent spirit (if not the excellent air) of Professor Köhler's institution. All the members of it, as far as I could judge—teachers, students, and children—seemed in a healthy mental condition. All were busy, earnest, and advancing, and testified in various ways to the powerful influence of the presiding genius of the place, ostensibly embodied in the person and character of the Professor, but really in the principles and practice of the great master whom he so ably represents. The benevolent and intellectual spirit of Fröbel pervades the place. Here, to a greater extent than anywhere else within my experience, his principles serve as the broad continuous basis of the system of instruction and education; and the results, as far as I could judge of them, do great credit to the system.

EISENACH.

On the 12th of September I found myself in Eisenach, where there is one Kindergarten of seventy-six children, admirably conducted by Miss Traberth. This lady, an original pupil of Fröbel, was, I believe, a learner in his school at Keilhau, and was trained as a Kindergarten governess under his direction. Hers, therefore, may be looked upon as an original Kindergarten of the true type. When I entered the room, I found a division of the children (about forty) engaged in a game, in which one, who was blindfolded, was attempting to ascertain, by feeling the dress and features, who the child was to whom she had been led up. When she succeeded, which was not always the case, great joy was manifested by the rest.

Another division was engaged in *Netzzeichnen*—drawing doors, pumps, chests of drawers, &c., very neatly. One little girl, whose drawing was incorrect, when the fault was very kindly pointed out, cried. This was the first tear I have seen shed in a Kindergarten. The soothing words of the teacher, however, speedily dissipated the clouds, and sunshine appeared again.

The rest of the exercises were such as I had frequently seen before. They were well performed in an earnest manner; and indeed everything was well done in this Kindergarten, under the direction of the very kind and intelligent Miss Traberth, who was assisted by two young teachers.

In the course of this day I looked in at the "Seminar," or normal school for elementary schoolmasters, the arrangements of which seemed very complete. There was a practising school in the same building. I just entered three of the classes, each consisting of about seventy boys and girls, evidently very poor, many of them without shoes and stockings. The rooms were very close and stuffy, and, as a consequence (so at least it appeared to me), there was less interest and earnestness both in teacher and children than I had witnessed in some other institutions. The teacher in each case was a young man. I did not stay during the lessons, for the atmosphere oppressed me.

I next proceeded to the Bürgersschule (No. 2), where I found in the class I entered sixty-four girls (ages six and seven). The teacher (a man) was giving them a lesson on birds. They all looked much interested, and answered the questions he put eagerly and well. They seemed familiar with the birds named, and gave particulars of their appearances, habits, &c. There were, however, neither birds nor pictures then in view.

In another class (of about seventy children, of nine or ten years of age) the teacher was giving a lesson on the geography of Germany, a noble map of which was before the learners. He was asking the names and position of places, and tracing (or rather asking them to trace) the courses of the rivers. He occasionally drew pictures of the rivers on the blackboard, and asked what towns were placed at the points he indicated. Neither he nor the children had any book. They answered his questions promptly and well, especially when the state of the atmosphere was considered. I believe if I had stayed very long in it myself I should have forgotten even the course of the Thames.

My purpose was now accomplished. Next morning I set off on my journey homewards by way of Frankfort, Cologne, and Ostend.

CONCLUSION.

In the foregoing pages I have described what I saw, and only what I saw; but in order to make my account more complete, I will add a few particulars relating to Kindergarten and elementary school teaching, and this especially because people who talk on our platforms, and even in official reports, of promoting popular education, frequently seem as if they were unaware that something very different from what they are talking about exists out of England. They talk as if they had never reached the conception of education as development and culture, and had derived all their knowledge of it from what they see going on in our primary schools, where there is—with very rare exceptions—neither development nor culture in any true sense of the term.[1] It is therefore important to show—though I have already, in fact, shown it—that it is possible not only to form a theory of education as culture, but practically to carry it out, so as to embody the theory in action. Now, supposing that I had myself formed no such theory of education, but had merely, as an impartial spectator, looked at the work going on before my eyes in the Kindergarten and elementary schools I have visited, I could have evolved the theory from the practice. And, first, as to the Kindergartens. Observing the little children at their games and occupations, I could come to no other conclusion than that they were by these means developing all their powers—bodily, intellectual, and moral—in a manner at once natural and healthy; and that this development was accompanied by pleasure and satisfaction. It involved, therefore, and secured, an all-sided training of the faculties, to which no other name could be given than that of culture. I observed, too, that the culture was self-culture. It consisted in the practical exercise of the children's powers by themselves. They learned to do by doing—by their own doing—not by that of the teacher. It was their own eyes that saw, their own hand that wrought, their own minds that devised, contrived, and often invented; and hence the earnest interest which they everywhere displayed. This interest, I saw, was the legitimate previous result of self-exercise, and could have been due to no other cause. No exertions on the part of the teacher, without reference to this cause, could have produced it. She might have exhorted, preached, warned, scolded, explained, told, with no other result than that of exciting vexation and disgust, without the continued self-active co-operation of the learners themselves. The work in which their education consisted was to be their work, not hers; to be done by themselves, not by the teacher.

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[1] If this and other remarks I have made on our Revised Code system appear too sweeping, I must take refuge under Dr. Morell's apologetic report for 1873 (recently published), in which he thus sums up the "general result" of its working, which is—"That all those elementary acquirements which are of a mechanical character, or which depend upon definite mental exercises rather than reflection (such as writing, elementary arithmetic, spelling, and the power of recognising words), are on the average *well taught;* but that those acquirements which depend upon thought, sentiment, reflection, or research (such as reading with expression, arithmetical problems, geography, history, literature, and so forth), take a very low and exceptional place in our present school system." In this passage he seems to consider that "to develop the intellect, to cultivate the imagination, to inform the understanding, to elevate both the æsthetic taste and the moral feelings," is to present an "ideal standard" the attainment of which is quite out of the question.

Comment on these quotations is needless. They prove the position I have assumed, and show that our primary education secures neither development nor culture. It is a system of education which leaves out the very essentials of true education.

It was easy to see that the self-action and self-exercise, on the part of the children, constituted personal experience—gained at first hand—and therefore their own. It was not the experience of the teacher "communicated" (though such communication is really impossible) to the learner, and superseding his. It consisted rather in countless processes of seeing, hearing, feeling, performed by the children themselves, and registering themselves in their minds as ideas, or in countless actions performed by their own limbs (especially their hands), and forming habits of doing. Now the very conception of ceaseless activity of the senses, mind, and limbs, excludes the notion of idleness; and I saw without surprise no idleness in the Kindergarten. All was busy, healthy, happy life.

I could not in presence of these facts come to any other conclusion than that which was going on before my eyes was in the strictest sense of the term education, and that it consisted essentially in self-culture. It was, moreover, in a very definite sense, culture on the part of the teacher—culture of the kind that the gardener bestows on his plants and flowers. These he cultivates according to their nature—a nature which he recognises in all his treatment.

He does not theoretically devise a nature for them, and impose upon this nature conditions of growth to suit his theory. On the contrary, he observes the phenomena which present themselves, assumes these as the laws which are to govern his action, and confines that action to cherishing favourable and warding off unfavourable influences. He elicits the vital forces of the plants, not by direct action upon them, but by securing the light, air, and warmth which are necessary for their development. *Mutatis mutandis*, the function of the child-cultivator is that of the plant-cultivator. Both have to secure growth, and to do this by similar means. In a general way (there certainly were exceptions), I saw the Kindergarten governesses satisfying in their practices the demands of this theory of their proper function as child-cultivators.

On the whole, I concluded that the work going on in the Kindergarten is a just and natural education, suited to the nature of little children, bringing out healthily and happily the faculties of every side of their being, and laying the basis of culture on their self-activity and personal experience.

Turning to the earliest elementary education of children in the primary schools, I saw much that was in strict accordance with the aforesaid principles. I saw the children of from six to eight years of age earnestly, and, as far as I could judge, happily engaged in their work; and I noticed that this was conspicuously the case in schools in which the Fröbellian means and appliances formed part (as they frequently did) of the machinery of instruction; most of all (as at Gotha) where these children had already passed through the Kindergarten. I was present at lessons in reading where it was taught (1) separately, either by illustrations on the black board, or (2) by means of movable wooden tablets containing separate letters; (3) in connection with writing, every scholar forming the letters on his slate while he uttered their sounds; (4) in connection with the reading primer (*Lesefibel*); and in every case I observed that the powers of the letters, not their names, were demanded and given by the scholars. In every case, too, the meaning of the separate words, when formed out of the sounds, was required and promptly furnished. I saw in these lessons in reading a recognition of the principle that it is by the actual contact and contest of the learner with facts and realities that power is elicited and trained. The teacher in general told the children nothing but the conventional sound corresponding to the printed or written symbol which, because it was conventional, they could not discover for themselves. All the rest was the pupils' own work.

I was also present at a lesson in writing (described page 241) given by a first-rate teacher, who required numerous preliminary exercises with the fingers, wrist, hand, and arm, all of them illustrating the principle of personal experience, and preparing the children to do by knowing what they had to do, and how to set about it.

I heard a lesson in one of these elementary classes on a picture, and observed the intense interest excited by it, and noticed further that the real personal experiences of the children, brought to consciousness by the handling of the teacher, furnished them with the power to interpret the various features of the picture.

In another very interesting lesson, initiating the study of geography (described p. 239), I observed an illustration of the principle of proceeding from the near to the more remote in ever-enlarging concentric circles, one horizon of knowledge succeeding another in the exact order of nature. Here, too, the personal observation of the children, their own life's experience, was the basis of the instruction.

Lastly, at Gotha, I was present at a truly remarkable lesson in elementary botany (see p. 257), in which little girls of nine or ten years of age showed, by their apt drawing of leaves, &c., on the black board, a singularly accurate knowledge of natural forms. Here, too (if I may presume, and I hope I may, that the knowledge thus reproduced was gained by observation of the objects themselves), was a striking evidence that clear notions come not from the telling of the teacher, but from the contact of the learner's own mind with the realities of nature and life.

Without referring to other instances, these furnished me with materials for the induction, that the elementary teaching in German primary schools is characterized by its demand on the self-exercise of the learner's own powers: that, as a rule, it does not stupefy the learner by wordy explanations (often requiring explanation themselves), or weaken his faculties by doing for him what he can and ought to do himself; that it is, in fact, a practical gymnastic for the mind, recognising the important principle, that as the dancing-master, for instance, does not get his pupils to learn the art by dancing himself, but by making them dance, so the teacher—that is, the director of the mind—must gain his end not by doing the pupil's thinking for him (which, however, is impossible, though often fondly attempted), but by making him think and act for himself. I do not say, for I do not believe, this theoretical aim was always so strictly kept in view by the teachers as it might have been, but considering the disadvantages under which, in many cases, both teachers and children worked, the large classes, sometimes containing seventy or eighty pupils, and the stifling unoxygenized atmosphere of the schoolrooms, I was often surprised at the earnest interest and the intellectual activity which pervaded the system. The ultimate conclusion, therefore, to which I arrived with respect to the German elementary classes (I only speak of them in the primary schools), was that, as a rule, development and culture were aimed at and secured; and this conclusion was based on the fact (1) that the children very generally did the work themselves, without the telling of the teacher; (2) that their order and attention testified to the interest excited by the lesson; (3) that the firm and accurate performance of the correct lesson (with scarcely even a blunder) evinced the mastery of the previous lesson; (4) the reading, writing, and arithmetic were taught on intellectual principles, which required observation and thought, and maintained the co-operation of the learner's with the teacher's rule; (5) that book instruction was subordinated to practical exercises on the black board; (6) that the teacher taught, and did not merely order the children to learn.

In these facts I saw evidences of development and culture, that is, of education, though my observation was confined to the case of very little children. I do not endorse every practice carried on in these schools, nor believe that in all cases the most was made of the materials, but that the "ideal standard" of our schools is the real standard of German elementary schools I have no doubt whatever.

As regards external arrangements, there are two points to which my attention was forcibly drawn. In the first, *every German elementary teacher has a separate class-room.* By this means the distraction arising from the juxtaposition of several classes under different teachers in the same room is absolutely excluded. The teacher is a "monarch of all he surveys," and is therefore invested with complete responsibility for all that goes on under his administration. The well-being of his little realm lies entirely in his own hands, and he must himself concert the measures necessary for securing it. In the second place, *there are no pupil-teachers in the German primary schools.* Teaching being recognised as a psychological art—the result or practical outcome of a thorough training in principles—it is justly presumed that crude children entirely ignorant of such principles, unformed in character, and for the most part destitute of well-digested knowledge, are entirely unfitted for the important business of teaching others. The contrary assumption involves indeed a direct denial of the existence of a science and art of education, and strikes at the root of any radical improvement in it.

I am fully aware that we have in England many even that are considered high authorities in matters of education—Principals of Normal Colleges, and others—who strenuously advocate the pupil-teacher system; and one (Dr. Rigg) even goes so far as to recommend its adoption by the German authorities. I am morally certain they will never adopt it. They will probably, in time (as they ought to do), reduce the number of scholars in the classes, and largely increase the number of teachers, but they will never stultify themselves so far as to supersede the scientific and artistic teaching which now generally prevails, by sanctioning that which, in the nature of things, can be neither scientific nor artistic. They value education too much to endanger its interests by such experiments.

The pupil-teacher system has been advocated on the ground of its economy. The argument is, however, futile. That is truly economical which gains its ends by the best means; and if it should turn out on investigation (and such an investigation must, before long, be authoritatively made) that much of the acknowledged failure in our own primary instruction is due to the extensive employment of pupil-teachers, the argument founded on economy will fall to the ground. If the object is not gained, it is foolish to boast of the means by which it ought to have been gained. If instead of deploring the results of our teaching, and complaining of them (as the Government Report does every year) as "unsatisfactory," we could point to them with pride as successful, and challenge criticism upon them, the case would be very different. It might then be said with some show of plausibility that the end justifies the means; but who that knows what the average teaching in our schools is will urge this plea? Our system stands condemned by its theory (if it can be said to have any; it is condemned by its practice, and even more condemned by its unsatisfactory results; and I venture to express my individual opinion that much (I cannot, of course, say how much) of the failure is due to the extensive employment of pupil-teachers. Nor can there be much doubt that a well-trained single teacher will hold in hand and pervade by his influence a class of even fifty children, so as to touch the springs of intellectual action in them more effectually than would be done by the same teacher taking only thirty pupils, and handing over in sets of ten each to two pupil-teachers the rest of the fifty. I think it highly desirable that the very large classes of the German schools should be reduced by nearly half; but, judging by my own observation, I should say that, although working under great disadvantages, the German elementary teachers succeed in awakening and maintaining in the children an amount of interest and intellectual life which, taken in the aggregate, has rarely been equalled even in our own best schools when the same number of children were distributed and disposed of among ordinary pupil-teachers. Take reading as an instance. Who does not know the weary plodding of the little children, "with weary steps and slow," and the stumbling-blocks and intricacies of their early lessons, tripping up continually against the former, and bewildered by the latter; unused to help themselves, and therefore regularly waiting for help from without? and not in vain, for the pupil-teacher, or some member of the class, seeing the need, comes to the rescue with just so much aid as lifts the traveller off the stumbling-block, or throws a momentary gleam of light over the fog which surrounds him, but leaves him just as unable to deal with the next difficulty, or to penetrate the darkness himself, as before. The untaught and inexperienced young teacher does not know (how can he know?) that the "telling," which constitutes his whole resource, is not teaching at all; that true teaching ever aims at increasing the pupil's fund of power—not in helping him merely to scramble over the present difficulty, but in making this difficulty the very means of conquest over the next—in helping the child to help himself. I saw no such "teaching" as this in Germany—not even an approach to it. The methods were various (and I believe in the existence of a better method of teaching reading than any I saw), but they agreed in this, that they called for the exercise of the observing powers of the children, and required their active practical co-operation with the efforts of the teacher, who certainly did not teach as if he thought that his vocation was "telling." There was, too, an orderly sequence in the lessons, and the children seemed to march forward step by step with a sort of aptness and confidence as if relying on themselves, which, even taken alone, in itself showed, to my practised eye, how the previous lesson had been learnt. I saw nothing of the bewildered, appalled look on being called upon for individual effort which characterizes the learner who is conscious that he is unequal to the occasion, and has his weapons of attack still to seek. I rarely heard a blunder made, and when made, the teacher did not merely "tell" the child the correction, but required him to try again; and the quickened attention in most cases solved the difficulty. But the method itself is the preservative against blundering. If you make a pupil do the work himself—taking "action, action, action!" as your motto, not stupefying him with your "telling," but making him "tell"—not talking much yourself, but making him talk—not bewildering him with explanations of your own, but requiring his, which must always be the outcome of his knowledge and personal experience—the result will be that he gains power at every step, and that this power will secure him against much blundering, except that which arises from mere inattention;—and "telling" is certainly no remedy for that. The ordinary child who blunders and stumbles much at his lesson is a witness of the imperfection to his previous training. He does not prove by his blunders any native incompetency on his own part, but he does prove the incompetency of his teacher, who has failed to secure good grounding. As far as this negative argument goes, it is in favour of the German teacher.

One word as to punishment. The best evidence I can give on this point is, that I saw none except the instance mentioned (p. 240), and there the punishment simply consisted in removing from the offender the means of taking part in the lesson. What, however, might follow when the pencil was restored I had no means of knowing; but this I can say, that I was present at no administration of chastisement of any kind. In the classes there was perfect order, and even, on the part of so very small children, continued and undivided attention; often, indeed, an eager, unrepressed interest—no noise, no scolding, apparently no taking of marks, therefore no contention or dissatisfaction: and again, no visible implements of punishment—rod, cane, ruler, or tawse. As this is not intended to be a complete—indeed it is a very incomplete—account of German elementary schools, I do not pretend to assert that stringent measures of discipline, without which, some maintain, children cannot be "got past the bitterness of their learning," are not resorted to, or that there is no "torturing hour" which "calls" delinquents "to penance." I simply say that I saw nothing of the kind. My visits, I may add, were never expected. I merely heard the lesson going on, and never, except on one occasion, did I allow of any interruption of the ordinary course of business. I was not therefore, perhaps, very far wrong in attributing the remarkable order, attention, and interest manifest in all kinds of schools—not merely the elementary—to something inherent in the system of teaching. It is very clear to those who think about the matter and know human nature, that if you require children at school to do only that which they can do themselves, and therefore excite an interest in doing for its own sake, you will rarely need to employ artificial restraints or punishments. I may, indeed, go further, and maintain, without fear of contradiction, that where the schools are really good—that is, pervaded by the principle just stated—children generally will not require "compulsion" to force attendance at them. If this be true, it goes far to solve the vexed question of compulsory attendance. Make the schools good—that is, suit the teaching to the nature of the children—and "attendance," large and regular, will follow as a matter of course. The invariable report of our own Inspectors is, that where the schools are good—good in the sense I have just explained—no compulsion is needed; the schools are crowded with scholars. The remarkable experience furnished by the late Dean Dawes' school at King's Somborne is to the same effect, as a case in which the regular attendance was eight-ninths of the number on the rolls, in which the children, sometimes from a distance of three or four miles, in all weathers, flocked joyfully to school, and in which the parents (many of them labourers earning only 9*s.* a week) made great sacrifices to keep their children where they were so happily and usefully employed in exercising their faculties.[1] All sorts of schemes have been suggested for securing attendance. Why not try the experiment of "good schools?" To carry it out effectually, however, from my point of view, would involve a great revolution. Teachers would have to consider even the relation in which they ought to stand to their pupils. They would have to give up drilling and dragooning children, and try attracting them with learning; to give up the cramming and word-drenching which too generally prevail in our primary schools, and demand self-teaching in their stead; to study more closely than they do the nature of children, and to suit their methods of instruction to it. The Normal Colleges also would have to share in the revolution. They would have to impregnate students more deeply than they usually do with the fundamental principle that education is culture, and to send them forth not merely masters of the art of "communicating" their own knowledge, but of the higher art of teaching children how to gain knowledge, and with it power, for themselves. This great revolution must commence at headquarters, and one of the first measures for effecting it must be the sweeping away of the Revised Code into the limbo of oblivion. As long as it lasts, it not merely sanctions, but to a large extent systematically enforces, bad teaching.

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[1] See the late Professor Moseley's admirable report (occupying forty pages) on this school in the Blue Book for 1847, which all who wish to know what a "good" elementary school is ought carefully to study.

I ought to add that much of the excellence of the German elementary teaching is no doubt due to the influence of Pestalozzi's principles. Even where not acknowledged, his spirit pervades the work, and shapes the methods employed. His main principles—that of proceeding from the near, the area of the pupil's own observation and experience, and preparing him by self-exercise for advancing to the more distant and remote; and his secondary principle—that of requiring that the pupil's movement onward shall be made step by step, without a break—are surely recognised in the ordinary teaching of the elementary schools.

Again, Pestalozzi's demand that all instruction should be based on the pupil's own observation (*Anschauung*) of tangible and visible facts and objects, and should therefore be definite and real, subordinating the knowledge of words to the knowledge of things, is, for the most part, satisfied in the practice of the elementary schools.

In fact, ever since the time when numbers of young teachers were sent by different German Governments to study Pestalozzi's work at Yverdun, and when also some of the highest authorities in education became convinced, in exercising it, of the soundness of his principles (I mean such men as Schlösser, Gerard, Wilhelm Von Humboldt, Fichte, Von Müller, Schelling, Schacht, Krüger, Plamann, Harnisch, Karl Ritter, Zeller, Denzel, &c.), the ultimate effect was assured. The adoption of Pestalozzi's principles by the Governments of Prussia, Saxony, Baden, Würtemberg, &c., has only been a matter of time, and to their adoption we may fairly ascribe the enlightened teaching, with its excellent results, in the common schools of Germany. When the different States shall add (as Saxony has done) Fröbel's methods to those of Pestalozzi, the arrangements for elementary education will probably be as complete as it is possible for ordinary human ingenuity to make them.

NOTES.

NOTE 1, PAGE 1.

ARRANGEMENT OF LECTURES.

In order to explain the arrangement of these lectures it should be stated that the lectures given by Mr. Payne, as Professor of Education to the College of Preceptors, comprised three courses, given in successive terms viz.:—(1) The Theory, (2) The Practice, and (3) The History of Education; the latter course being the basis of the present volume.

NOTE 2, PAGE 3.

BIBLIOGRAPHY OF HISTORY OF EDUCATION.

The precise titles of the authorities on the History of Education used in these lectures are—

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R. H. Quick. "Essays on Educational Reformers." London: Longmans, 1868; Cincinnati: Robert Clarke & Co.

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A more recent work is—

Oscar Browning's "History of Educational Theories." Kegan Paul & Co., 1881.

The following additional works on the History of Education may also be referred to:—

Henry Barnard. "German Educators."
" "English Pedagogy." First and second series.

Leitch. "Practical Educationists." Macmillan & Co., London.

Gabriel Compayré. "Doctrines de l'Education." 2 vols. Hachette.
" "Histoire de la Pédagogie." Delaplane. Translated into English by W. H. Payne, London, 1888.

Buisson. "Dictionnaire de la Pédagogie." Certain articles.

August Schorn. "Geschichte der Pädagogik in Vorbildern und Bildern." Leipzig: Verlag der Dürzschen Buchhandlung.

Note 3, Page 14.

GREEK EDUCATION.

On this subject may be consulted further—

Professor J. P. Mahaffy. "Old Greek Education." Kegan Paul & Co., 1881.

Dr. Oppler's "Lectures on Greek Education." Published in the *Educational Times.* 1867.

Professor A. S. Wilkins. "National Education in Greece in the Fourth Century B.C." London, 1873.

Note 4, Page 15.

SCOURGING OF SPARTAN BOYS, or διαμαστίγωσις.

This strange rite is given by Schmid and other writers on education as if it were merely educational in its object and a part of the Spartan system of training, but a different origin is attributed to it by ancient writers. The following account, given on the authority of Pausanias, is quoted from no more recondite source than Smith's "Dictionary of Antiquities." A wooden statue of Artemis, which Orestes had brought from Tauris, was found in a bust by two men, who were immediately struck with madness at the sight of it. The Limnœans and the inhabitants of other neighbouring places then offered sacrifices to the goddess, but a quarrel ensued among them, in which several individuals were killed at the altar of Artemis, who now demanded atonement for the pollution of her sanctuary. From henceforth human victims were selected by lot and offered to Artemis, until Lycurgus substituted for this sacrifice the scourging of young men at her altar, thus making it a part of his system of training the Spartan youth to endure suffering. But that there was some strange meaning in the rite is shown by the requirement that the blood drawn by the lash should fall upon the altar. Another quite different account of the origin of the custom, as commemorating a certain quarrel between the Spartans and the Lydians, before the battle of Platæa, is given by Plutarch in his Life of Aristides.

But the punishment would hardly seem to have been applicable to all the Spartan youths, even of a certain age, and therefore could not have been entirely educational; and the probability is that the custom was a very ancient one, of which the Spartans felt bound to offer some explanation, as all nations do with respect to traditional observances of which the origin is lost in antiquity. It is interesting from an ethnological point of view, both as showing the vestiges of human sacrifice among the Greeks, and because many savage nations at the present day subject their youths at the age of puberty to severe punishments and tortures, with the ostensible object of hardening them to endure the sufferings and privations of war.

NOTE 5, PAGE 18.

PHYSICAL TRAINING AMONG THE GREEKS.

The importance attached by the Greeks to good physical training is perhaps better illustrated by a passage from Xenophon's Memorabilia (Lib. III, cap. 12) than by any of those quoted by Professor Mahaffy. The argument is put into the mouth of Socrates, and for the sake of those readers who have not ready access to the Greek the editor offers the following rough translation as a contribution to practical hygiene :—

Socrates meeting a young man named Epigenes, one of his friends, and seeing that he was in poor bodily condition, said to him, "Why, Epigenes, how out of training you are!" "But, Socrates," he replied, "I am a private person [*i.e.*, not an athlete] and am not obliged to be in training." "Indeed you are," said Socrates, "just as much as those who are preparing to compete in the Olympian games. Do you think that the life and death contest with our foes which the Athenians will enter upon whenever it may happen to be necessary, will be a light matter? But not a few persons lose their lives in the perils of war by reason of their bodily weakness, or make a disgraceful escape; while many, from the same cause, are taken prisoners, and as captives either pass the rest of their life, if it happen so, in rigorous slavery, or else falling into money difficulties, and paying sometimes more than they possess as ransom, pass the rest of their life in want and misery; and many, too, get a bad name because, through their weakness of body, they are thought cowards.

"Do you despise these penalties of a bad physical condition, and think that you could easily bear such ills as these? In my opinion it is a much easier and happier fate which attends those who pay attention to their physical condition. Or do you think that to be in bad training is more healthful or more advantageous in other respects than to be in good training? Or do you despise the results which follow from being in good training? Yet the consequences to those who have their body in good condition and those who have it in a bad condition are opposite in every respect.

"Those who are in good physical condition are healthy and robust; by means of it they come out of battle unhurt, in body and reputation; they escape all the perils of war; many succour their friends and deserve well of their country, on which account they win the goodwill of others, gain great glory, and receive the most distinguished honours. They pass the rest of their lives in greater ease and distinction, and leave behind them a better provision for their children.

"Moreover, these things are not to be neglected in private life because the State does not happen to be engaged publicly in warlike operations; they require, on the other hand, no less attention in times of peace. I would have you know that neither in any other struggle, nor in any kind of practical life, will you get on worse because you have brought your body into a good condition. For the body is useful in all pursuits which men engage in, and in all matters in which the body is useful it is of great importance to have it in the best possible condition. And even in those things in which you may think the body is least useful, namely, in intellectual pursuits, who does not know that even in these many men fall into great aberrations through not possessing good bodily health? Nay, weakness of memory, low spirits, ill-temper, and even insanity, often penetrate the minds of many persons so deeply, through their bad physical condition, as to cast out and dispossess knowledge itself. There is a great security, on the other hand, for those whose bodies are in good condition; they run no risk of suffering any such evils through a low physical condition. Rather, it is natural that good bodily health conduces to the very contrary of those evils which arise from bad health. What is there that any reasonable man would not undergo for the sake of securing the opposite of those evils which I have spoken of? It is disgraceful that any one through want of attention to these matters should grow old without seeing what sort of man he can become by making his body as well developed and robust as possible. And this no one can know who does not pay proper attention to these things, for they do not come of their own accord and unsought."

Note 6, Page 21.

PLATO AND ARISTOTLE.

The theoretical views of Plato and Aristotle are treated by Mr. Mahaffy in his work already referred to. Plato's views are given chiefly in the "Republic" and the "Laws." Aristotle's in the eighth book of the "Politics" and in certain passages of the "Nicomachean Ethics."

On Plato see an article by Mr. Nettleship on "The Theory of Education in the Republic of Plato" in *Hellenica.* London, 1880.

Note 7, Page 31.

JEROME'S LETTER.

This letter is one addressed *Ad Lætam* and numbered 107 in Migne's edition. (Patrologia. Hieronymi Opera, Vol. I.)

Note 8, Page 39.

MELANCHTHON.

Philip Schwarzerd, afterwards known as Melanchthon, was born fourteen years after Luther, February 16th, 1497, at Bretten, a small town in Baden, the son of an armourer. He was great-nephew of John Reuchlin, whose name is well known as a humanist and forerunner of the Reformation. He learnt grammar (*i.e.*, Latin) from a certain Johannes Hungarus, who, he says, made a grammarian of him by a judicious but not excessive use of the rod. On the death of his father, which happened when he was ten years old, the boy was transferred to the care of his grandmother, Reuchlin's sister, at Pforzheim, where he was often visited by the great scholar, and to him he owed the translation of his paternal name into its afterwards well-known Greek equivalent. In Pforzheim he had also some instruction in Greek from George Simler. At the age of twelve he entered the University of Heidelberg, where he says little was taught in the public lectures but wordy dialectics and a little physics. He himself, however, continued his classical reading, especially in the Latin poets. In 1511, when fourteen years old, he took the degree of Bachelor of Arts and became tutor to the sons of a nobleman, for whom he is said to have compiled the first sketch of his Greek grammar. Afterwards, partly because the University, on account of his youth, refused him the degree of Master, he removed to the University of Tübingen. Here he became an active adherent of the "Reuchlinists," or the party of the "New Learning," whose efforts to introduce classical studies met with bitter opposition from the monks and the partisans of scholasticism. At the age of seventeen Melanchthon became Master of Arts, and immediately afterwards began to lecture on Virgil and Terence. Two years later he published an edition of Terence, and was made Reader in Rhetoric. After another two years, when only twenty-one, he brought out his Greek grammar. These remarkable performances would be enough to show the intellectual precocity and brilliancy of Melanchthon, but during these very years he was also engaged in studying Hebrew, Greek, Theology, and Law (which he was said to have taught privately), and even Medicine, reading assiduously the works of Galen in the original. By the universality, no less than the profundity of his studies, he qualified himself for the position of the "Schoolmaster of Germany."

In 1518 he was invited, on the recommendation of Reuchlin, to become Professor of Greek in the University of Wittenberg. Here he became acquainted with Luther, who received him with enthusiasm and expressed the warmest admiration for his intellectual gifts. For twenty-eight years the two friends worked together, with what remarkable results to Church and State is well known. Melanchthon's University teaching was not confined to Greek, but included Biblical Exegesis, Ethics, Dialectics, Physics, as well as the Latin and Greek classics. He attracted students from all European countries, and had, it is said, at one time as many as 2,000 auditors. Although he may have been little suited for the work of a schoolmaster, as a professor his relations to his students appear to have been very happy.

Melanchthon's services to school education were, in the first place, as a universal adviser and referee, his counsel being sought in many quarters where new school or university systems had to be constructed; in the second place, as a school and church inspector.

In 1527, John, Elector of Saxony, originated, at the instigation of Luther, a complete visitation and inspection of the churches and schools throughout Saxony, and Melanchthon, with two colleagues, was entrusted with the task. In his official capacity he composed, in 1528, a "Visitations — Büchlein," or "Inspector's Manual," which is of great historical importance, not the less because it was clearly in part the work of Luther. In it is implicitly contained, not only the constitution (said to be the earliest) of an Evangelical Church government, independent of the Pope, but a scheme of Protestant school instruction, which, though (according to the authorities) very imperfect, is worthy in its historical consequences to be compared with that constructed by John Knox for Scotland. Beside religious teaching, Latin was, as might be expected, to be the staple of instruction and the chief instrument of training.

Melanchthon died fourteen years after Luther, in 1560, and at the same age, sixty-three.

[Von Raumer. "Geschichte der Pädagogik." (Trans. in H. Barnard's *German Educators.*) The original biography of Melanchthon is that by his friend Joachim Camerarius, "De Vitâ Philippi Melanchthonis Narratio." Re-edited by Strobelius, Halæ, 1777. See also Melchior Adam, "Vitæ Germanorum Philosophorum"; Francofurti, 1663, from which the above account is partly taken. We have in English, Cox's "Life of Melanchthon." London, 1815.]

Note 9, Page 41.

ERASMUS.

The life of Erasmus is of too wide import to belong exclusively to the history of Education, and has been so often written that it need not be referred to more fully here. Some interesting particulars are given in Mr. Seebohm's work, "The Oxford Reformers," about the connection of Erasmus with Colet.

The following letter, written by Erasmus to Colet from Cambridge, will, I think, be of interest, as showing the views which Erasmus held as to the importance of the scholastic profession. He was evidently at the time looking out for an assistant-master for Colet's new school, St. Paul's. To avoid the necessity of long explanations of certain phrases I will venture to give it in English:—

I have just recollected something which I know will amuse you. When I was in the company of certain Masters of Arts I brought up the question of your usher, and one of them, a man of no little repute, said, smiling, "Who would endure to spend his life in that school, in the midst of boys, if he could manage to live in any way whatever elsewhere?" I replied gently that, to instruct the young in good morals and letters appeared to me to be one of the most honourable of occupations—that Christ did not despise that time of life, on none did He more directly bestow a blessing, nor did He look for a more abundant fruit from any age than from youth, as being the seed-ground and nursery of the State. I added that all truly pious men would be of the same opinion, thinking that by no work could they serve God better than by leading children to Christ. But the other, turning up his nose with a sneer, replied, "If any one is bent on serving Christ entirely let him enter a monastery and embrace religion." I answered, that Paul made true religion to consist in works of charity, and that charity consisted in doing as much good as possible to our neighbours. This being awkwardly expressed he twisted it against me. "Oh then," he said, "here we have a man who has given up all things. This is the perfect life!" "At least," I said, "he has not given up all things who, when he might be of service to a great number of persons by his labour, despises an office because it is considered a humble one." So not to make a quarrel I left him. Here you see the wisdom of these Scotists!

("Erasmi Epistolæ." Basil, 1521, p. 421.)

NOTE 10, PAGE 43.

TROTZENDORFF.

Valentine Trotzendorff was the son of a peasant farmer, Bernhard Friedland, and was born in 1490, at the small village of Trotzendorff, near Görlitz in Silesia, and afterwards assumed the name of Trotzendorff (or Trocedorffius in Latin), from his native village. He received a precarious and interrupted education at the school of Görlitz, being destined by the ambition of his parents, especially of his mother, for the priesthood. His mother's parting words, which Trotzendorff regarded through his whole life as imposing a sacred duty upon him, were "*Lieber Sohn, bleib bei der Schule!*" At the age of twenty-three he lost his father, and entered the University of Leipzig, where, among other branches of learning, he studied Greek under Richard Croke, an Englishman, who had lately introduced that language into the University course. A knowledge of Greek was at that time a rare accomplishment, and when Trotzendorff returned to Görlitz as an under-master in the school where he was educated, his colleagues and even the Rector did not disdain, we are told, to take lessons from him. The fame of Luther's celebrated theses against indulgences reached Görlitz, and roused the curiosity of Trotzendorff, who went to Wittenberg to become better acquainted with the celebrated men who were teaching there; and for five years he studied at the feet of Luther and Melanchthon. For the latter Trotzendorff had an enthusiastic admiration. He made him his model, and committed to memory certain phrases and words of his teacher's, which he himself used in his teaching till the end of his life.

In 1523 Trotzendorff was invited to the school at Goldberg, in Silesia, first as co-Rector, then as Rector. Religious controversies, however, and other difficulties at first interfered with his success, and after this as well as another abortive scheme had failed, Trotzendorff returned to Wittenberg in 1529. Two years later he was again urgently pressed to undertake the Goldberg School a second time; he consented, and for twenty-five years carried it on with remarkable success.

His pupils came, we are told, not only from Silesia, but from Austria, Carinthia, Styria, Hungary, and Poland; they were from all ranks of society, not a few of noble birth; but it was a fixed principle of Trotzendorff's that there should be no distinction of nationality, and no respect for rank. Among his maxims were, "*Tros Tyriusque mihi nullo discrimine agetur*," and "*Ponit personam nobilis qui induit scholastici*." The main subjects of instruction in this famous school were of course those most valued at the time, viz.: the *trivium*, Grammar, Dialectic and Rhetoric (in Latin), and a little Greek. Great importance was attached to Latin writing and speaking; and so successful was the system in imparting the latter accomplishment that it is said Latin became the vernacular language at Goldberg.

> Atque ita Romanam linguam transfudit in omnes,
> Turpe ut haberctur, Teutonico ore loqui.
> Audisses famulos famulasque latina sonare,
> Goldbergam in Latio crederes esse sitam.

Religious instruction, based of course on Protestant principles, was imparted with great solemnity and earnestness, and was the especial work of the head-master.

But the most remarkable part of Trotzendorff's scheme was one which had a certain resemblance to the system of English public schools, that is, the delegation of a great deal of authority to senior pupils, and investing them with powers of discipline. The whole school was treated as a sort of republic; the head-master was a *perpetual dictator*, but made use of a number of boy-magistrates, or monitors, to supervise the rest at all hours. These received the names of *Oeconomi, Ephori, Inspectores, Quæstores.*

The *Oeconomi* had to rise first in the morning, ring the bell to wake the other boys, get them out of bed, see that they performed a proper toilet, and were down in time for school prayers. Afterwards they had in the same way to summon the school to lessons, to exercise supervision out of school hours, and to prevent disorders in going to bed, &c., and were not allowed to retire to rest till they had seen everything in proper order. The monitors (as they might be called) of each dormitory reported to one of their number who was their head, and he might report to the head-master, who was sometimes present. But the latter sometimes, and with much wisdom, as we should think, deferred his inquiries till long after the event, and then concerned himself chiefly with cases where he suspected some grave moral offence.

The *Ephori* were on duty at meal times, and superintended the *discophori* (plate-bearers) who waited at table. It was also their duty to exercise discipline in everything relating to cleanliness, neatness, and good manners.

The *Quæstores* had to superintend the school work, to see that the boys were present at the regular lessons and prayers, and to mark down the absent. The quæstors were appointed week by week, and each had to make a public oration on laying down his office.

School offences were tried by a regular tribunal, composed of a consul (elected monthly), twelve senators, and two censors. The trial was conducted in presence of the whole school, the master, as *Dictator perpetuus*, sitting in the midst. He himself sometimes appeared as Public Prosecutor or accuser; sometimes this part was assigned to one of the scholars; and when the accused had defended himself, sentence was pronounced by the Court. It was then the head-master's duty to affirm and repeat the sentence, and to inflict the punishment awarded. Trotzendorff highly valued these proceedings as a political discipline, teaching boys even from their earliest years to respect law and government. "He made it quite as much his care to mould the character of his pupils as to stuff their breasts with learning;" a principle which in the present day is certainly more characteristic of English than of German education. But I believe the nearest approach in this country to this system of trial by a school court was made by Mr. Hill, at the Bruce Castle School, Tottenham.

The latter days of this original schoolmaster, whose vigorous and attractive personality has an almost romantic interest, were not happy. The discipline of the school began to fall off (owing, as his biographer says, to the machinations of the devil and the evil spirit which is abroad in these latter days); a terrible plague dispersed the pupils, and finally the town of Goldberg was destroyed by fire, and the school buildings utterly consumed. Trotzendorff, with the remains of his scholastic flock, repaired to Liegnitz, where he painfully endeavoured to reconstitute his school. At last, one day, as the old man was repeating to his pupils the twenty-third Psalm, at the words, "Though I walk through the valley of the shadow of death Thou art with me," he was struck down by apoplexy. He murmured, "*Ego vero, auditores, nunc avocor in aliam scholam*," and these were his last words. Five days afterwards, on April 26th, 1556, he died at the age of sixty-six.

[The above is taken chiefly from the life of Trotzendorff in Melchior Adam, "Vitæ Philosophorum," already quoted, which is founded on an oration contained in "Declamationes Philippi Melanchthon," Tom. V. Some details are borrowed from Raumer, *op. cit.*, I, 213, who quotes several other authorities.]

NOTE 11, PAGE 43.

JOHANN STURM.

This "Cicero of Germany," as he is called by his biographer, was born in 1507, at Sleiden, a small village in the district of the Eiffel, near the Rhine. His father, a man of worth and learning, was steward to the Counts of Manderscheid; and the boy had the advantage of being educated by the same tutor as the young sons of the Counts. He was afterwards sent to the college of the Brothers, at Liège; and thence to the University of Louvain, where he remained three years as a student, and two as a tutor, and made himself an accomplished Greek and Latin scholar. Sturm, like many other scholars of the time, was struck with the importance of the art of printing as an aid to learning; and in conjunction with Rudgerus Rescius, Professor of Greek in the University, and with the help of capital supplied by his father, established a press at Louvain. Several important Greek authors were printed here, especially Homer. Probably in order to find a better market for his books, Sturm, in 1530, migrated to Paris, carrying his stock-in-trade with him. He does not appear to have printed in Paris, but continued his studies and extended them to philosophy and medicine, so that he was admitted to the office of a public teacher, and lectured on Greek, Latin, and Logic. In Paris Sturm married and kept a sort of boarding-house or hostel for students (the embryonic stage of a college), where he received especially foreigners of distinction, Italians, Germans, and English ("a bishop and several barons at one time!" says his admiring biographer). By this means Sturm formed a large acquaintance with the learned throughout Europe, and corresponded with all the eminent scholars, such as Erasmus and Melanchthon, the latter of whom declared that Sturm was the only man whom he found it difficult to write letters to. Those friendships and others brought Sturm into connection with the Protestant party, with which he strongly sympathised; and he began to find his position in Paris a difficult one. Accordingly, though he was about to take the degree of Doctor of Medicine, and probably meant to practise, he was glad to accept the invitation sent to him by the Senate of the city of Strasburg, in 1537, to be head-master of a Grammar School there. This school, under the patronage of the Senate of Strasburg, especially of a nobleman, Jacob Sturm (who must not be confounded with the schoolmaster, with whom he was not connected), was placed on a proper foundation, and under Johann Sturm's direction soon became eminent. He appears to have collected the boys into one building—in fact, made a boarding-school instead of a day school; and himself laid down the plans of teaching which were to be followed by his under-masters. The school at Strasburg became celebrated, and was elevated in 1566 to the position of a University.

It ought to be remembered in regard to Sturm's position that he not only became an authority on education, but, like some other scholars of the time, was largely concerned in politics and diplomacy. He kept up a copious correspondence with the Protestant princes and royal personages; and was consulted about matters of state as well as church and school affairs. He also went on diplomatic missions to England, France, and other countries, and received great honours, as well as, in some cases, considerable pensions from the princes with whom he had relations. Queen Elizabeth of England was one of his patrons, and probably rewarded him with a similar recompense. These relations are thought by some to have detracted from the simplicity of Sturm's character, and to show a mercenary spirit. On the other hand he is said to have been hospitable and munificent in assisting exiles and victims of persecution, especially the French Protestants, on whom he spent all his wealth. Sturm lost his sight some years before his death, which happened in 1589, when he was in his eighty-second year.

Sturm wrote a number of theological tracts, chiefly controversial, and a still larger number of classical and educational works. Out of a list of nearly thirty dealing with these subjects the following may be mentioned:—

Nobilitas Literata, Argentorati (Strasburg), 1549, a tract on the education of noblemen and gentlemen, addressed to two noble brothers named Werter, giving them a sort of general plan of education and course of reading. It was translated into English by Thomas Browne, and printed at London, 1570, under the title of "A Ritch Storehouse or Treasure for Nobilitye and Gentlemen."

De literarum ludis recte aperiendis, Argentorati (Strasburg), 1538. This tract is addressed to Jacobus Sturm and two other citizens of Strasburg, who appear to have acted as what we should call the School Board of the Senate, and were, in fact, appointed to carry out Sturm's own plans. It contains general recommendations for the foundation, external and internal management of a grammar school, and the order of studies.

Also may be mentioned *De Educatione Principis* and *De Nobilitate Anglicana*.

Sturm was an intimate friend of our own Roger Ascham, and some of their correspondence is printed in the collection of Ascham's letters.

[Chiefly from Melchior Adam, *op. cit.*]

NOTE 12, PAGE 52.

COLET.

The following short account of John Colet will supplement the observations in the text.

John Colet was born in London in 1466; the son of Sir Henry Colet, a wealthy merchant and Lord Mayor of the city of London. Though the eldest born, he was in the end the only survivor of twenty-two children. He was educated first in London, and about 1483 entered the University of Oxford, probably at Magdalen College, though this is uncertain, and studied there. About seven years after leaving the University, probably about 1493, he set out for the continent, and studied for about three years in the universities of France and Italy. He is known to have visited Paris and Orleans, and afterwards to have made his way to Rome, probably staying at Florence and other seats of learning on his way. Mr. Seebohm has made it probable that he was brought in contact with the Neoplatonists of Florence, or at least had studied the works of Pico della Mirandula, and more especially Marsilio Ficino, and was influenced by them in his theological views. There are also reasons for thinking that he may have come under the influence of Savonarola, who was a great power in Florence at the time of Colet's Italian journey. It does not appear that he took the opportunity of acquiring any knowledge of Greek. At Rome he met with the eminent scholar William Lily, who had just returned from studying Greek at Rhodes, and who was afterwards to be the first head master of St. Paul's School.

On his return to England, Colet went back to Oxford and there gave gratuitous public lectures on theological subjects, which were very largely attended, though he held no public professorship. In Oxford he made the acquaintance of Erasmus and Sir Thomas More, who were afterwards his closest friends. He was ordained Deacon in December, 1497, and Priest in the following March, but had before this, through family influence, been presented to three Rectories (the first when he was only nineteen years of age), and at least two prebends. He held several other Church preferments before he was, about 1505, made Dean of St. Paul's. As Dean, Colet acquired great influence in the City and the Court by his preaching; but his vigorous endeavours to reform the abuse of the Cathedral foundation naturally brought him into disfavour with the clergy and others concerned. The income which he derived from his Church preferments was (according to Erasmus) reserved for purposes of hospitality connected with his office.

By the death of his father he became possessed of considerable landed property, and about the year 1509 began the foundation of St. Paul's School, which according to the text of the statutes was actually founded in 1512 (Lupton's Colet, p. 272).

Colet died September 16th, 1519, at the age of 53.

Much of what is known of Colet's life is derived from the letters of Erasmus, and especially from a life of Colet which he wrote with another biography in the form of a letter to Justus Jonas. This has been translated by the Rev. J. H. Lupton as "The lives of Jehan Vitrier and John Colet," by

Erasmus of Rotterdam, translated with notes. London: G. Bell and Sons, 1883.

We have also the "Life of Dr. John Colet," by Samuel Knight, D.D. (London, 1724); and "The Oxford Reformers: Colet, Erasmus, and Thomas More," by Frederic Seebohm, 2nd edition (London, 1869).

But the "Life of John Colet," by the Rev. J. H. Lupton (London: Bell & Sons, 1887), now supersedes all others.

NOTE 13, PAGE 53.

COLET'S LETTER TO ERASMUS.

This interesting letter is found at page 90 of the folio collection of Erasmus's letters (Basileæ, 1521). The most important passages are:—

Non facile credideris Erasme, quanta me lætitia affecit epistola tua, quam modo ad me attulit unoculus noster.* Nam ex ea intellexi ubi nam locorum es, quod ante ignorabam; ex eadem etiam videris mihi reversurus ad nos quod erit mihi et amicis quos habes quam plurimos, gratissimum. Quod scribis de Novo Testamento intelligo. Et libri novæ æditionis tuæ† hic avide emuntur et passim leguntur multis probantibus et admirantibus studia tua; nonnullis etiam improbantibus et carpentibus et ea dicentibus quæ in epistola Martini Dorpii ad te scripta continentur. Sed ii sunt Theologi illi, quos tu in Moriâ tua et aliis locis non minus vere quam facete describis; a quibus laudari vituperium est et vituperari laus est. Ego vero ita amo tua studia, et istam tuam novam æditionem ita amplector ut in eadem varie afficiar. Nam nunc dolor me tenet, quod non didicerim Græcum Sermonem, sine cujus peritia nihil sumus; nunc gaudeam in ista luce quam tu ex sole tui ingenii emisisti. Profecto Erasme miror fæcunditatem pectoris tui, qui tot concipis, et tanta parturis; et tam perfecta paris quotidie maxime nullo loco stabilis, nullis certis et magnis stipendiis adjutus.

Quod deploras fortunam tuam, non fortiter, in tanto negocio videlicet in declarandis scripturis, non poterit tibi fortunam deesse; modo speres in Deo qui te in primis adjuvabit, stimulabitque alios ut te in sanctissimis studiis adjuvent. Quod me exclamas felicem demiror, si de fortuna loqueris, ut non est nulla mea, ita non est ampla, et meis sumptibus vix sufficiens. Ego me beatum putarem, si vel in summa egestate millesimam partem tuæ doctrinæ et sapientiæ possiderem; quam tu sine opibus comparasti, docens doctrinam singularem alia via nescio qua, sed tua ista *Erasmica* et cætera. Applicabo si me patieris et adjungam lateri tuo, exhibeboque me tibi discipulum, etiam in discendo Græce quanquam jam provectus ætate et prope Senex, memor Catonem senem Græcas literas didicisse, agnoscens etiam te qui es mecum par ætate et annis, nunc Hebraicis literis te dare. Me ut facis ama et si ad nos reversus fueris, habebis me tibi deditissimum. Vale.

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* Peter Meghen, the well-known one-eyed scribe, celebrated for his caligraphy, who wrote for Erasmus and Colet.

† "Your new publication," that is, the first edition of the New Testament in Greek.

NOTE 14, PAGE 54.

COLET'S LATIN GRAMMAR.

This passage is from Colet's "Accidence," the history of which is as follows:—

Reference has been made to the great pains taken by Colet to secure good text books for the use of his new school.

For a new Latin grammar he first applied to his friend, Thomas Linacre, the distinguished scholar and physician, but the work written by him with this object being thought to be too elaborate for young scholars, Colet determined to write an accidence himself, and set his headmaster, William Lily, to work on the syntax. The outcome was a little manual which must have been published in 1510, but that edition has entirely perished. The earliest edition known is one dated 1527, of which a single copy only survives in the Peterborough Cathedral library. The title, as given by Mr. Lupton, is "Joannis Coleti theologi, olim decani divi Pauli, æditio una cum quibusdam G. Lilii Grammatices rudimentis. Anno MDXXVII."

Colet's own share in the book, his "æditio," consists of the articles of admission to the school and a catechism in English, with the Apostles' Creed and some prayers in Latin. There is also a "Lytell Proheme," or preface, in English, explaining the objects of the book, and his anxiety to make it very simple and easy "in suche manner as gladli yonge begynners and tender wittes myght take and conceyve." It ends with these beautiful words, "Wherefore I praye you, al lytel babys, al lytel chyldren, lerne gladly this lytel treatyse and commende it dylygently unto your memoryes. Trustynge of this begynnynge that ye shal proceede and growe to parfyt lyterature and come at the last to be gret clarkes. And lyfte up your lytel white handes for me, whiche prayeth for you to God. To whom be al honour and imperyal majeste and glory. Amen."

After the accidence proper comes a paragraph from which the passage in the text on the mode of teaching Latin is quoted.

The syntax, called "De Constructione Octo Partium," appears to have been written by Lily, though Colet himself had some hand in it. It was revised with great care by Erasmus, who says while it was correct before he then made it most correct (pro castigato castigatissimum). A unique copy of this syntax, printed by Pynson in 1513, is in the Bodleian Library, and it was several times reprinted abroad. Lily's syntax, further altered and enlarged, became the foundation of the celebrated Eton Latin Grammar. The fact that this syntax was a work of joint authorship is the explanation of its having been published afterwards anonymously.

Erasmus also wrote, at Colet's request, a phrase book for the new school, "De Copia Verborum et Rerum," and the great scholar further lent his pen to composing a set of Latin prayers, some of which are still in use at St. Paul's, with a little oration in Latin, "Concio de Puero Jesu," to be spoken by one of the scholars.

We see then what an amount of learning and intellectual force was employed in providing the scholastic apparatus for the "Children of St. Paul's."

The St. Paul's grammar was also reprinted by Wolsey for the use of his school at Ipswich, with a preface and perhaps other contributions by the great Cardinal himself; who it should be remembered had been Master of the Magdalen College Grammar School.

The originals of most of the above documents are printed in Knight's "Life," or more completely and accurately in Mr. Lupton's "Life of Colet" (Appendix B, page 285). See also the memoir by Mr. S. L. Lee, in the "Dictionary of National Biography."

Mr. Lupton has published several of Colet's theological works from MSS. previously inedited.

NOTE 15, PAGE 54.

ELYOT.

Sir Thomas Elyot was the son of Sir Richard Elyot, Justice of the Common Pleas. The place and date of his birth are uncertain, but according to Mr. Croft he must have been born before 1490. He was not educated at either University, but only in his father's house, and from his twelfth year had no schoolmaster but himself, though he speaks in the "Castel of Helth" of the assistance given him in his studies by a learned physician, doubtless meaning Linacre. He was a lawyer, and held certain legal offices; and in 1531 was sent by Henry VIII as his envoy to the Emperor Charles V. He died March 25th, 1546.

The circumstances of Sir Thomas Elyot's life show that he occupied a position as a lawyer and a man of the world outside the class of professed students and schoolmasters. But he was an enthusiastic and diligent scholar, and deserves to be held in especial remembrance by the scholastic profession as the pioneer of Latin lexicography in England. He published in 1538 a Latin-English dictionary, which has been described as "the first work entitled to be called a dictionary printed in England." Elyot's dictionary, or the "Bibliotheca Eliotæ" was edited and enlarged by Thomas Cooper, Master of Magdalen College School, and afterwards Bishop successively of Lincoln and of Winchester, and in this form went through three more editions. Finally, Cooper, with Elyot's materials and some derived from other sources, compiled his own "Thesaurus linguæ Romanæ et Britannicæ," which first appeared in 1565, and went through four editions. It was a favourite book with Queen Elizabeth, and or a long time the standard Latin-English dictionary.

Sir T. Elyot wrote also "The Castel of Helth," a popular medical work in English, which passed through many editions, and other books beside that from which our extract is taken.

"The Governour" was first published in 1530–31, and several editions appeared in the author's lifetime and afterwards. It has lately been edited in a splendid form, and annotated with great care by Mr. Henry Herbert Stephen Croft (two vols., Kegan Paul, Trench and Co., 1883). All that need be known about Elyot is contained in the Introduction and Notes to Mr. Croft's edition.

NOTE 16, PAGE 62.

ASCHAM.

Roger Ascham was born 1515, and died 1568. His book, "The Scholemaster," was brought out after his death by his widow in 1570, and reprinted in 1571 and 1589. In 1711 an edition in quarto was published under the editorship of James Upton; and others followed in the last century.

Of recent editions the best are that in Professor Arber's series of English reprints, and that edited by Professor Mayor (London: Bell and Sons), of which the former is the more antiquarian and the latter the more practical. Ascham's whole works are reprinted in three volumes, under the editorship of Dr. Giles in the "Library of Old Authors," formerly published by Russell Smith.

NOTE 17, PAGE 63.

MONTAIGNE.

Michel de Montaigne was born 1533, died 1592.

His celebrated "Essais" first appeared in an incomplete form, comprising two books, at Bordeaux in 1580. The final and complete edition, augmented with a third book, was published at Paris, 1588, and has since then appeared in innumerable reprints. The passages quoted in the text are from the "Essai de l'Institution des Enfants," Liv. I., cap. 25.

The preceding essay, "Du Pedantisme," also contains passages bearing on the same subject.

NOTE 18, PAGE 73.

MILTON'S TRACTATE ON EDUCATION.

This was first published anonymously in June, 1644, with the title, "Of Education, to Master Samuel Hartlib," in one sheet small quarto, forming a thin tract of eight pages without a title-page. It was reprinted by Milton himself, and issued with the second edition of his minor poems in 1673. The title was "Poems upon several occasions, by Mr. John Milton (both English and Latin), composed at several times. With a small Tractate of Education to Mr. Hartlib." London, 1673. 8vo.

Since then there have been numerous editions published either with Milton's other works or separately. Among the most recent is Mr. Oscar Browning's edition, published by the Cambridge University Press.

It should be observed that this little pamphlet was a sort of letter *addressed* to Hartlib, and not, as often erroneously supposed and stated, a treatise *dedicated* to him.

Milton also himself wrote a short Latin Grammar, with the title "ACCEDENCE commenc't GRAMMAR, supply'd with sufficient rules for the use of such as Younger or Elder, are desirous without more trouble than needs, to attain the *Latin tongue.* The elder sort especially with little teaching, and their own industry.—*J. M.* London, 1669. 12mo., pp. 65." It is also known that he commenced the compilation of a Latin Dictionary.

NOTE 19, PAGE 77.

COMENIUS.

John Amos Komenski, generally known as Comenius, was born 1592 at Comna or Niwnic, a village of Moravia. His father, a miller, belonged to the Moravian brethren. He received no instruction in Latin till he was sixteen years of age, but afterwards continued his education in Germany, especially at Herborn in Nassau. Returning to Moravia he was appointed master of one of the schools of the Moravian brethren at Prerau, and wrote a Latin grammar ("Grammaticæ facilioris Præcepta," printed at Prag, 1616); but his consecration to the pastoral office at the age of 24 caused him, it would seem (though this is doubted by Professor Laurie), to give up his scholastic duties. In 1618 he was appointed pastor of the Moravian Church at Fulneck, near Troppau, one of the most important of that body, and had also the superintendence of a school.

Here Comenius married and spent three years very happily, but Fulneck suffered from the troubles of the Thirty Years' War, being in 1621 taken and destroyed by the Spaniards. Comenius lost all his property, including his books and manuscripts, and for some years afterwards lived more or less in concealment to evade the rigorous persecution of the Moravian brethren and other protestants which followed the triumph of the Imperialist party. At last he found a refuge at Leszna or Lissa in Posnania, under the Polish rule, and being made Rector of a school there, began to bring into order his views on education, with the object of framing an entirely new system of teaching.

After comparing the views of various learned men he composed, in his native Czech language, his first treatise on the principles of education, which was not immediately issued, but afterwards translated into and published in Latin as "Didactica Magna."

In 1631 he brought out the "Janua Linguarum Reserata," the history of which is given in the text and in the following note. This little elementary school book (which was all the Janua was meant to be) had an immense success, being translated into or adapted to most European and even some Oriental languages, and brought to its author a corresponding harvest of fame and recognition.

Among other persons with whom Comenius's educational schemes brought him into relation was Samuel Hartlib, a merchant of Polish extraction but English by his mother's side, who was then living in London. Hartlib was one of those men who would at a later date have been called a philanthropist, and one who busied himself not only with his own schemes for the improvement of mankind, but in furthering those of others. At the instigation of Hartlib, and on the invitation of the English Parliament, Comenius came to London in 1641, and was encouraged to hope that his schemes of educational reform would receive support from the Government; but, owing to the political troubles of the times, nothing was done, and Comenius went away disappointed.

On leaving England Comenius was invited by a rich Dutch merchant, Lewis de Geer, known as the generous friend of exiled protestants, and at that time living in Sweden, to come to that country. Under the patronage of De Geer, and the Swedish Chancellor Oxenstiern, he took up his residence at Elberg, a town of West Prussia, and devoted himself to perfecting his educational system. After some years spent in this way Comenius was in 1648 recalled to Leszna, as Bishop of the Moravian Church. In 1650 he accepted a call from Sigismund Ragotzki, Prince of Transylvania, to organise a sort of model school at Saros-Patak in that country, which seems to have come nearer to Comenius's own ideal than any other over which he had presided. It was here that he composed the celebrated "Orbis Pictus."

After four years Comenius returned to Leszna, where the calamities of war again overtook him; his property and his valued manuscripts being for the second time destroyed in 1656 on occasion of a war between Poland and Sweden, in which Comenius suffered as a partisan of the latter. A final asylum was at length found for the persecuted Moravian at Amsterdam, where Lawrence de Geer, the son of his former patron, was now Swedish Ambassador to the Court of Holland. Here Comenius superintended the publication of his collected didactic works in four volumes folio (Amsterdam, 1657), of which Lawrence de Geer bore the expense. The remainder of his life was spent in the same hospitable city, where he died October 15th, 1671, in his eightieth year.

[See "Life of John Amos Comenius," by Professor S. S. Laurie, from which the foregoing account is chiefly taken.]

NOTE 20, PAGE 80.

THE ORBIS PICTUS.

The pages here reproduced in facsimile are taken from the English edition of 1705, with the title "Joh. Amos Commenii Orbis Sensualium Pictus—Joh. Amos Commenius's Visible World," translated into English by Charles Hoole. It has 150 copper cuts which are copied from the woodcuts of the original German edition, and a portrait of Comenius as frontispiece, engraved by T. Cross.

A full account of the editions of the Janua and Orbis Pictus would fill a volume; but a short notice may be useful to give the reader a clue in this tangled subject.

There are three distinct books which have to be taken into account:—

1. The "Janua Linguarum" of the Jesuit fathers of Salamanca.
2. The "Janua Linguarum Reserata" of Comenius.
3. The "Orbis Pictus" of Comenius.

1. The original Janua, which was in Latin and Spanish, was designed by William Bathe, an Irish Jesuit, born at Dublin, who carried it out with the help of other fathers of the College. The title is "Janua linguarum sive modus maxime accommodatus quo patefit aditus ad omnes linguas intelligendas . . . . . industria patrum Hibernorum Societatis Jesu qui in Collegio ejusdem nationis Salmanticæ degunt, Salmanticæ, 1611. 4to." [Brit. Mus.] It consists of 1,200 short sentences in the two languages. An edition in English and Latin was brought out by William Welde, at London, in 1615, and reprinted subsequently. It was from a copy of Welde's version (afterwards in the possession of the Rev. R. H. Quick) that Mr. Payne made the references in the text. The earliest edition in the British Museum is the fourth, dated 1621. A sixth edition appeared in 1626, edited by J. H., in whom the British Museum Catalogue recognizes John Harmar (the younger), Headmaster of St. Albans' Grammar School, and afterwards Professor of Greek at Oxford, under the Commonwealth.

There were also editions by Isaac Habrecht (Strassburg, 1629, etc., in six languages), and other later ones were published on the Continent.

Jo. Barbier, a French teacher in London, brought out, in 1617, an edition in four languages, as "Janua Linguarum Quadrilinguis : or a Messe of Tongues, Latine, English, French and Spanish ; neatly served up together for a wholesome repast, to the worthy curiositie of the studious. London. By Matthew Lownes, 1617." The French version alone was due to Barbier. I have also seen a *ninth* edition, in English and Latin only, edited by Thomas Horne (who also edited Comenius) ; printed by James Young, London. 1645. [Brit. Mus.]

2. The "Janua Linguarum Reserata" of Comenius was published 1631. An edition, with English text, was brought out shortly afterwards by John Anchoran. The earliest edition in the British Museum is the third, entitled "Porta Linguarum trilinguis reserata et aperta, sive seminarium linguarum et scientiarum omnium. Tertia editio, opera studio et elucubratione J. Anchorani (The Gate of Tongues unlocked, etc.)."

There is added a "Clavis ad Portam wherein you may find the Latine and French for any English word," by W. Saltonstall. In Latin, English and French. London. 1637. 8vo.

Anchoran's edition, in Latin, English and French, appeared again in 1639; but there were other rival versions in the field. One which seems to have been very popular was Latin and English only, translated by Thomas Horne. The earliest copy in the British Museum is the following : "Janua Linguarum reserata, etc. The Gate of Languages unlocked . . . . . formerly translated by T. Horne, afterwards corrected by J. Robotham. Sixth edition. London. 1643. 8vo."

The version was republished in 1647, 1650, 1667, 1673, and doubtless oftener, by various editors, "W. D.," "G. P.," etc. Also with the addition of a "Portall, or Vestibulum," and a "Foundation." The latter, "containing the chief primitives of the Latin tongue drawn into sentences," was the work of the English editors.

Comenius himself greatly altered and enlarged his work between 1650 and 1654 (Laurie, "Life of Comenius," p. 184, first edition), and it was evidently this revised edition which was the basis of the trilingual editions in Latin, Greek and English, published at London in 1662 and 1670. These editions are illustrated with figures which are, however, quite different from those of the Orbis Pictus. Comenius himself wrote a short note for the edition of 1662. The title is as follows: "Janua linguarum trilinguis sive Jo. Amos Comenii, janua linguarum novissime ab ipso authore recognita, aucta, emendata; adjunctis metaphrasi Græca et Anglicana versione. London. 1662 and 1670.

Professor Laurie is of opinion that Comenius, in the later form of his work, "deserted nearly all that was most characteristic and original in his system except his encyclopædism."

There are other London editions, beside those here mentioned, in the British Museum. Of the very numerous continental editions it is unnecessary to speak.

Comenius also wrote a sort of introduction to Janua, with the title of "Vestibulum." This also was translated into English from the Dutch version of J. Schoot, by J. Brookbank. The title is: "Jo. Amos Comenii Vestibulum novissimum Linguæ Latinæ, etc., or J. A. Comenius, his last Porch of the Latin tongue, etc., made English by J. Brookbank. London. 1657. 8vo."

It was also subjoined to various editions of the Janua under the name of a "Portall."

Another very curious work of Comenius's was the "Schola-Ludus seu encyclopædia viva, hoc est Januæ linguarum praxis comica."

This is a sort of school drama in which the substance of the Janua is introduced. It contains five acts, twenty-one scenes, and fifty-two *dramătis personæ.* The characters represent the various departments of knowledge, *e.g.*, the geographer, the metallurgist, the chemist, and so forth. Professor Laurie (whose account I have followed) says that though it conveys a great deal of valuable information, "anything more dreary than this sportive Janua it is impossible to conceive." The work found, however, an English editor in 1664.

3. The celebrated Orbis Pictus was first published in 1657, at Nuremberg. It is a sort of abridgment of the Janua, with very creditable woodcuts. In the English translation issued by Charles Hoole, 1659, these woodcuts were replaced by small copper plates (the art of wood-engraving being then at a low ebb in England), and these were repeated in the subsequent editions with ever increasing badness of execution. The book was certainly popular, since the eleventh edition appeared in 1728. After this nearly fifty years elapsed before the twelfth, or final English edition in 1777. This was, however, reprinted at New York in 1810. An American editor, Mr. C. W. Bardeen, also reproduced the eleventh edition in facsimile. (Syracuse, New York, 1887.)

In Germany the work, with great additions and alterations, held its ground up to the present century. I have an edition published at Reutlingen, 1842, in four languages, including English of a very strange idiom. Some of the figures are almost as quaint to us now as those of the seventeenth century. I believe there are later German editions.

The above details show the great popularity of Comenius's school books, and what a vogue they had at one time, even in our own country. It appears also that the Orbis Pictus did not supersede the Janua, and though much is said about the greater popularity of the former, I am not sure that in England, at least, the Janua and its various out-growths were not printed quite as often as the Orbis Pictus.

Moreover, Comenius's Janua did not supersede the original Janua, which appeared, as has been said, in 1645 in a ninth edition. When Milton, therefore, in his Tractate speaks of "modern Janua's" he was evidently thinking of the older work as well as of Comenius's.

NOTE 21, PAGE 83.

LOCKE'S SYSTEM OF PHYSICAL TRAINING.

On the subject of physical training, which is an important part of Locke's system, perhaps the editor of this work may be permitted to express a professional opinion which is not entirely in accordance with that given in the text. Locke, it should be remembered, was a regularly trained physician, and, moreover, one whose views were distinctly original, being doubtless to some extent reflected in the writings of the great reformer of practical medicine, Sydenham, who was his intimate friend. Locke, therefore, spoke not only with authority on medical matters, but with a wholesome independence of the dogmatic teaching of his day. In his directions for physical training there is little to find fault with, even from a modern standpoint. It is true that he was a partisan of a hardening, rather than of a cockering system; but there is much to be said on this side, which it was especially necessary to insist upon in the seventeenth century; and it is in this direction, if the mean be difficult to hit, that it is safer to lean. Locke's precepts for physical training hardly conflict with the modern practice of the hygienic or athletic school, except in one or two matters about which he had odd notions, or, in the modern phrase, "fads."

He sums up his views on this subject in the following paragraph (Section 30 of the "Thoughts"):—

"And thus I have done with what concerns the body and health, which reduces itself to these few and easy observable rules: plenty of *open Air*, *Exercise*, and *Sleep*, plain *Diet*, no *Wine* or *strong Drink*, and very little or no *Physick*, not too warm or strait *Clothing*, especially the *Head* and *Feet* kept cold, and the *Feet* often used to cold water and exposed to Wet."

Here the only point open to correction is the strange notion of keeping children's feet cold and wet, which is what I have ventured to call (*pace tanti viri*) a *fad*.

Perhaps I may refer to some notes on Locke's physical training, which I added, at the request of my friend Mr. Quick, to his edition of the "Thoughts concerning Education," published in the Pitt Press Series, Cambridge, 1880.

NOTE 22, PAGE 84.

ROUSSEAU.

The life of this philosopher furnishes, as Mr. Quick remarks, by no means a good illustration of his educational theories, and need not be here specially considered. His work on education, "Emile," was first published in 1762; and at one time could be obtained in an English translation, but this appears now to be entirely out of print.

NOTE 23, PAGE 91.

BASEDOW.

As the character and career of Basedow have been somewhat severely judged by the historians of education, it may be well to mention that a full memoir of him appears in the "Allgemeine Deutsche Biographie," from the pen of his great grandson, Professor Max Müller, which portrays the educational reformer in a different and more favourable light.

The account of a lesson at the Philanthropin is to be found in Raumer's history, and also translated in H. Barnard's "German Educators." It is in the form of an account supposed to be given by a little boy twelve years old, named Fritz, of his visit to the "Philanthropin." The following passages are taken with some alterations from the translation in Mr. Quick's "Educational Reformers," referred to in the lecture:—

"I have just come from a visit with my father to the Philanthropin, where I saw Herr Basedow, Herr Wolke, Herr Simon, Herr Schweighäuser, and the little Philanthropinists. I am delighted with all that I have seen, and hardly know where to begin my description of it. There are two large white houses, and near them a field with trees. A pupil—not one of the regular scholars, but of those they call Famulants (or servitors)—received us at the door and asked us if we wished to see Herr Basedow. We said 'Yes,' and he took us into the other house, where we found Herr Basedow in a dressing-gown, writing at a desk. We came at an inconvenient time, and Herr Basedow said he was very busy. He was very kind, however, and promised to visit us in the evening. We then went into the other house, and inquired for Herr Wolke." By him they were taken to the scholars. "They have," says Fritz, "their hair cut very short, and no hairdresser is employed. Their throats are quite open, and their shirt-collar falls back over their coats." Further on he describes the examination. "The little ones have gone through the oddest performances. They play at 'word-of-command.' Eight or ten stand in a line like soldiers, and Herr Wolke is officer. He gives the word in Latin, and they must do whatever he says. For instance, when he says *Claudite oculos*, they all shut their eyes; when he says *Circumspicite*, they look about them; *Imitamini sartorem*, they all sew like tailors; *Imitamini sutorem*, they draw the waxed thread like cobblers. Herr Wolke gives a thousand different commands in the drollest fashion.

Another game, 'the hiding game,' I will also tell you about. Some one writes a name and hides it from the children—the name of some part of the body, or of a plant, or animal, or metal—and the children guess what it is. Whoever guesses right gets an apple or a piece of cake. One of the visitors wrote *Intestina*, and told the children it was part of the body. Then the guessing began. One guessed *caput*, another *nasus*, another *os*, another *manus*, *pes*, *digiti*, *pectus*, and so forth, for a long time; but one of them hit it at last. Next, Herr Wolke wrote the name of a beast, a quadruped. Then came the guesses: *leo*, *ursus*, *camelus*, *elephas*, and so on, till one guessed right—it was *mus*. Then a town was written, and they guessed Lisbon, Madrid, Paris, London, till a child won with St. Petersburg. They had another game, which was this: Herr Wolke gave the command in Latin, and they imitated the noises of different animals and made us laugh till we were tired. They roared like lions, crowed like cocks, mewed like cats, just as they were bid."

Next came the examination in arithmetic. Here there seems to have been nothing remarkable, except that all the rules were worked *vivâ voce*. From the arithmetic Herr Wolke went on to an "Attempt at various small drawings." He asked the children what he should draw. Someone answered *leonem*. He then pretended he was drawing a lion, but put a beak to it; whereupon the children shouted, *Non est leo*; *leones non habent rostrum!* He went on to other subjects, as the children directed him, sometimes going wrong that the children might put him right. In the next exercise dice were introduced, and the children threw to see who should give an account of an engraving. The engravings represented workmen at their different trades, and the child had to explain the process, the tools, &c.

A lesson on ploughing and harrowing was given in French, and another, on Alexander's expedition to India, in Latin. Four of the pupils translated passages from Curtius and from Castellion's Bible, which were read to them. "These children," said the teacher, "knew not a word of Latin a year ago." "The listeners were well pleased with the Latin," writes Fritz, "except two or three, whom I heard grumbling that this was all child's play, and that if Cicero, Livy, and Horace were introduced, it would soon be seen what was the value of Philanthropinist Latin." After the examination two comedies were acted by the children, one in French, the other in German.

NOTE 24, PAGE 97.

PESTALOZZI.

There are now several memoirs of Pestalozzi in English, to which reference may be made for further information on his life and methods:—

"Henry Pestalozzi and his plan of Education," by E. Biber, Ph.D. (London: Souter, 1831.) With a good portrait.

"Life of Pestalozzi," by R. de Guimps, translated by John Russell. (London: Sonnenschein.)

"Pestalozzi," by Hermann Krüsi. (Cincinnati: Wilson, Hinkle and Co., 1875.)

Note 25, Page 134.

FROEBEL.

For a fuller account of Froebel's Kindergarten system as actually seen in operation, see the "Visit to German Schools," reprinted in this volume, p. 191, *et seq.*

An account of "Froebel's Early Life," including his Autobiography, has been published by Dr. Wichard Lange. "Aus Froebel's Leben und erstem Streben. Berlin, 1862."

The Autobiography has been translated into English by Michaelis and Moore. (London: Sonnenschein.)

Note 26, Page 139.

JACOTOT'S METHOD APPLIED TO TEACHING SCIENCE.

The question has, probably, often been asked whether Jacotot's method of instruction, supposing it to be of value in the teaching of languages, would be equally, or at all, applicable to the teaching of science. At all events, this question was raised many years ago, when Mr. Payne was actively engaged in advocating Jacotot's principles, by an eminent man, who was conspicuous in his day for his zeal in promoting education, the late Lord Brougham, and was expressed in a letter to Mr. Payne, which it may be interesting to reproduce.

Sir, *June 4th* [1830].

I have had an opportunity of reading your very interesting tract on Jacotot's system, and I feel extremely thankful to you for the luminous exposition you have given of a scheme which has much in it that is most sound and valuable.

The successful application of the principles to teaching languages I can have no doubt of. My hesitation is upon its extension to teaching science, and I am desirous that you should direct your attention to elucidate this essential matter.

H. Brougham.

What response Mr. Payne made at the time to this challenge I do not know. Probably he was then too little conversant with scientific methods to attack the problem. But what answer he would have given, and probably did give, at a later period, to this pertinent question, I do know; and as his views on this subject have never, I believe, been expressed in print, I will endeavour to give the substance of them.

It should be premised that Mr. Payne always regarded Jacotot's principles as essentially relating to instruction, and not so much to education in the higher sense of the word.

He used to say that he considered such a lesson as that on a pile-driving machine, exemplified in "The Culture of the Observing Powers of Children" (Collected Works, Vol. I, p. 219), as essentially an example of the true Jacototian method applied to Science. And he would place in the same category Professor

Tyndall's experiment in teaching Geometry, described in his lecture on the Study of Science (see Vol. I, p. 53, and note, p. 138).

If these examples be carefully considered, it will appear that the lessons are essentially based upon the same principles as lie at the foundation of Jacotot's lessons in language. A comparatively simple mechanical or physical problem is taken, which is thoroughly studied, so as to be known by the pupil's own experience, not on the authority of the teacher. The solution is obtained by the pupil's own efforts, the teacher playing an apparently passive, but really an actively vigilant and directive part. When this is done, the general laws involved in the problem are already mastered, and can be stated as generalizations by the pupil. And this is, I may say, the method adopted, not only in these examples, but by the best teachers in many branches of Science. It is held, that by the study and thorough mastery of a certain number of carefully selected experiments the pupil gains a better grasp of general principles in Physics than if, as was once the practice, and as is still recommended by a certain school, he should begin with general laws arrived at by reasoning, and work downwards to their application to particular cases.

On this point I can speak from personal knowledge, having had, formerly, some experience in the teaching of Natural Science, and a much longer experience in the teaching of the Applied Science of Medicine.

What is peculiar in Jacotot's method seems to me to be, not merely proceeding from the concrete to the abstract, nor the endeavour to call out the mental activity of the pupil, both of which virtues other teachers have recommended and practised, but the insisting on a very minute and exhaustive study (some think too minute and exhaustive) of special portions of the field to be cultivated. This, which may be called the *intensive*, as opposed to the *extensive*, or generalizing method, is, however, the same as has been applied, of late years, in several branches of Science, and very notably in Biology.

The older method of teaching Zoology, for instance, was to begin with the definition of an animal, then to proceed to the definition of classes, orders, and other subsidiary groups, till the characters of the species were reached. This I myself remember to have been the method pursued by Professor Grant, of University College, the first professor of Zoology in this country, who would always begin his course with the classification of the animal kingdom.

The modern method, on the other hand, which has been introduced chiefly through the influence of Professor Huxley, begins with the study of a few typical forms, which are exhaustively studied, and their minute characters learned, by actual dissection, so as to be perfectly understood.

It is held that the student, having mastered these types, is virtually acquainted with the structure of most of the animal kingdom, and will be, in reality, a better Zoologist than one who has only a superficial acquaintance with the general structure of all the classes and orders, if, indeed, even such a knowledge as this were attainable by a student.

As examples of this method I need only refer to Professor Huxley's own book on "The Crayfish: an introduction to the Science of Zoology," Professor Milnes Marshall on "The Frog," or Rolleston's "Forms of Animal Life," a more extensive work, but on the same plan, dealing with the study of concrete examples, not of classification. All these works imply actual dissection on the part of the student who uses them, and would indeed be almost useless without it.

It seems, then, this method begins with the concrete, that it calls out the mental activity of the learner, and that it is *intensive*, in the sense in which I have used the word above. If the objection should be made that too much time is given to the study of one or a few animals, and that the minute knowledge thus gained is an imperfect substitute for a knowledge of classification and of the characters of large groups, the answer is, that in learning thoroughly the characters of a single species you inevitably learn the characters of the genus, the order, the class, etc., to which it belongs; the extension of the species (in logical phrase) being so much higher than that of the larger groups, that all that can be predicated of the order, the class, etc., or of animals generally, is necessarily contained in a complete knowledge of the species. If we know the crayfish, for instance, thoroughly, we know all that can be said about crustaceans *generally*, about invertebrates *generally*, and about animals *generally*. To understand the significance of these characters, of course, comparison, generalization, and classification are necessary; but these follow naturally when a sufficient number of concrete facts are known, and are more perfectly understood when arrived at in this manner, than when studied in the converse order, beginning with such abstractions as *animal*, *invertebrate*, *crustacean*, and so on.

It seems to me that this method of studying Zoology is precisely analogous to Jacotot's method. No one maintains that to know half-a-dozen animals, however exhaustively, is really equivalent to a knowledge of the whole animal kingdom. But it is maintained that when these few forms are thoroughly mastered, all others will be as easily understood as a book may be read by one who has thoroughly mastered a single chapter. And all that is essential about animals will be known in the same sense that all that is essential in a literature will be known by one who is thoroughly acquainted with some half dozen masterpieces.

If an enthusiastic teacher should affirm all the laws of animal life, or the whole animal kingdom to be contained in a few fundamental types, or even in a single species, he would be making an assertion not, of course, literally true, but still true in the same sense as Jacotot's celebrated phrase, "Tout est dans tout," is true, that is, expressing a certain amount of real truth with intentional exaggeration and emphasis.

If we consider the sciences of physiology and histology the same principles hold good; for all that is really known of these sciences has been discovered from the study of a very few species: man, the dog, the rabbit, the frog, and two or three more. Their principles have not been established by the comparison of an enormous number of instances, nor merely from the application of the abstract principles of mechanics and chemistry to the explanation of animal life.

It would appear then, that so far as the biological sciences are concerned this method of teaching, which may be denoted from different points of view as *concrete*, or the *exemplary*, or the *intensive*, is really the method now recognised and practised by the best scientific teachers.

Now this is essentially Jacotot's method, so that it does not appear necessary to speak of applying Jacotot's method of instruction to the teaching of science, or to enquire how this may be done, since the modern masters of science have, by an entirely independent route, arrived at a method which is essentially the same as his, or strictly analogous, in a different subject matter.

As an example of an entirely different, or even opposite, method of teaching science we may refer to "Three Lectures on Education" by Mr. F. G. Fleay. London (Reeves and Turner), 1883.

NOTE 27, PAGE 152.

JACOTOT'S LIFE.

The following additional particulars of Jacotot's life may have some interest:—

He was the eldest of the eleven children of a butcher at Dijon, and though he was sent to the College or Grammar School of his native town, left it at the age of fourteen. After having been made a Professor and an advocate, he was induced by his cousin Pierre Jacotot, an eminent Professor of physics and chemistry, to study mathematics and physical science, subjects which were afterwards of practical importance to him. These pursuits were, however, interrupted for a time by political troubles.

Jacotot having embraced with ardour the principles of the Revolution, took arms in a battalion raised in the Côte d'Or, and was in virtue of his scientific attainments made a captain of artillery. Volunteering for foreign service he took part in the Belgian campaign under Dumourier, but in 1793 was recalled to Paris to superintend the manufacture of gunpowder. In this occupation he remained till, on the foundation of the institutions called "Ecoles Centrales," he was appointed to a scientific chair in the Ecole of Dijon. The remarkable fact of his holding scientific, literary, and legal professorships is explained by the statement that his services were especially in demand to fill a new chair, when it was decided to found one, and to give the subject a start, for which task his energy and power of organization especially fitted him. Politics again interrupted Jacotot's academical activity. He was always an ardent politician, and on the return of Napoleon from Elba in 1815, he was, though against his own wish, elected a member of the Chamber of Representatives during the "Hundred Days," and took an active part in the restoration of the Empire. The consequence was, that on the return of the Bourbons he was obliged to quit France, and took up his residence at Brussels till appointed to the Professorship at Louvain. On his return to France after the Revolution of July he does not appear to have obtained any public appointment, and retired to Valenciennes, where for seven years he pursued his method of teaching in private families.

It may be mentioned that in 1816 Jacotot suffered from Torticollis or wry neck, giving his head a permanent twist, and making a bandage necessary to keep it straight, which explains the peculiar appearance seen in his portrait.

NOTE 28, PAGE 173.

LOCKE'S METHOD OF TEACHING LANGUAGES.

The first edition of Locke's edition of Æsop here referred to was published anonymously in 1703, with the title:

> ÆSOP'S FABLES in English and Latin, *interlineary* for the *Benefit* of those who, not having a *Master*, would learn either of these *Tongues.* With *Sculptures.*
>
> LONDON. Printed for *A.* and *J. Churchil* at the *Black Swan* in *Paternoster Row,* 1703.

In one or more subsequent editions the name of John Locke is given.

The book consists of 337 pages 8vo.; and has five plates containing 74 small figures of animals, very poorly executed in copper plate.

As the Preface gives the plan of the work and also explains the peculiar typography of the specimen printed in the text, it is here given entire.

THE PREFACE.

The design of the following translation is for the help of those that have a mind to understand Latin books, but have not the opportunity or leisure to learn that language by Grammar.

And that it is not an impossible thing to learn a language without first beginning with the rules of Grammar we see every day by women and children learning the French tongue who know not what Grammar signifies.

Another use may be made of this Translation, which is to help strangers who understand Latin to learn English. This being the design of the Translation, it will not seem strange if it has been endeavoured to be made as literal as could possibly be, that the words which answer one another, being placed one over another, the Signification of the one might be learnt from the other, which are always printed in the same character to show their correspondence.

Particular Phrases there are in every language which cannot be rendered word for word in another Tongue. Where these occur in the Latin you will find several Latin words together printed in the same character, and answered by one or more in English in the same character. In other places where it can be done every other word is printed in a different character, and the word that answers it in the same.

In many places it has been necessary to add words in the English, to make up the sense, where there are none to answer them in the Latin, these are printed in the old English character, or between crotchets, different from the other two.

The reading of the Latin will by this means insensibly and with ease make everyone that does so understand it, he having the English everywhere ready at hand in the next line to help him where he sticks; for he needs but cast his eye to that which stands directly over it to know the meaning of the Latin.

Moreover, to teach those who are ignorant, how to accent the Latin words right, a little stroke upon the last Syllable but one, in all words above two

Syllables, shows that Syllable is to be pronounced long, else the accent is to be upon the third Syllable backwards.

The English of these Fables cannot be expected to be very good, it being intended verbally to answer the Latin as much as possibly it could, the better to attain that end for which this Translation was made.

There is added to this the Pictures of the several Beasts treated of in these Fables to make it still more taking to Children, and make the deeper impression of the same upon their minds.

It will help to facilitate the learning of the Latin if he that reads these Fables with that design will every now and then read the Declensions of the Latin Nouns and Pronouns, and the conjugations of the Verbs in the Accidence, whereby he will see and learn the variation of the termination of words in the Latin Tongue, and be brought into the knowledge of the force of them.

Note 29, Page 175.

HAMILTON.

James Hamilton was born in the year 1769, and educated at Dublin. In 1798 he settled at Hamburg as a merchant, and obtained instruction in German from a French emigré, General d'Angeli, who taught him by word-for-word translation without a grammar.

He afterwards removed to Paris, but his business being destroyed by political events, he emigrated to New York. There instead of going into business, he began to teach languages on the same plan as that on which he had himself been taught by D'Angeli. Finding it successful, he gave lessons in the chief cities of the United States and Canada, and advocated his system in lectures and publications. In 1823 he came to London, where he obtained many pupils, chiefly adults, but left them for the most part to his teachers, while he promulgated his system in other great towns.

Hamilton's schemes were, as has been said, carried out with the help of a vast amount of publicity and advertisement, on which it is said he had, by 1826, expended the sum of £1,000. His system, though assailed by many reviews, including the "Quarterly," was defended in the "Edinburgh" by the Rev. Sydney Smith, and in the "Westminster."

Hamilton died at Dublin in his sixtieth year. (See the "Dictionary of National Biography.")

He published the pamphlet referred to in the lecture, "The History, Principles, Practice and Results of the Hamiltonian system for the last twelve years; with answers to the 'Edinburgh' and 'Westminster' Reviews, &c." (Manchester, 1829, 12mo), and brought out numerous school books adapted to his system. Apparently the earliest was "The Gospel of St. John in Latin adapted to the Hamiltonian system by an interlineary translation, executed under the immediate direction of James Hamilton" (London, 1824).

NOTE 30, PAGE 176.

MARCEL.

M. Claude Marcel was French Consul at Cork for many years, and thus thoroughly acquainted with the English as well as with his own language. Mr. Quick states that he was not a teacher (except of his own nine children), but I doubt this. Beside the work referred to in the text he wrote a brief summary of it, entitled "The Study of Languages brought back to its true principles, or the Art of thinking in a Foreign Language," of which I have seen only the American edition (New York, Appleton and Co., 1869), but it was possibly also printed in London; and a French edition was published in 1867. Another book, "Premiers Principes d'Education," appears to have been published only in French.

But Marcel's earliest publication on the subject appears to have been a tract entitled "Practical Method of teaching the living languages applied to the French," &c. (London, Dublin, and Cork, 1820). This was evidently written in Cork; the writer describes himself as a Parisian who had not long been acquainted with English, and as engaged in teaching the French language. He must therefore be identified with Claude Marcel, with whose principles those promulgated in this pamphlet essentially agree. A copy is in the British Museum.

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